

PHASE II INVESTIGATION
WATER AND SOIL CONDITIONS
UOP SITE
EAST RUTHERFORD, NEW JERSEY

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VOLUME 1: Text, Figures, Plates, Appendices A, B, C

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PHASE II INVESTIGATION
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UOP SITE
EAST RUTHERFORD, NEW JERSEY

SUMMARY

1. Information developed during the Phase II investigation was obtained from water levels and from analyses of ground-water samples (from new and existing wells), surface-water samples, soil and stream sediment samples, and samples from the wastewater lagoons. The results of this study substantially confirm the conclusions reached during the Phase I investigation.
2. Site geology is characterized by a thin layer (1 to 5 feet) of artificial deposits (fill) underlain in most locations by a layer of low permeability meadow mat (peat). This layer substantially retards the migration of contaminants in the shallow system. Beneath the meadow mat is a layer of silty clay, followed by a more competent clay unit.
3. Water-table contours are controlled by the many surface-water bodies and historical drainage features which serve as discharge boundaries. As a result, there are water-table mounds and ground-water divides in several places throughout the study area.
4. In ground water, priority pollutant organic compounds were detected principally in two areas, with peak concentrations at Wells 13I, and 17I.

5. Volatile organic compounds (VOCs) represent the majority of the priority pollutant organic compounds in ground water; the highest values were detected in Wells 6I, 13I, and 17I. Benzene, toluene, and chlorobenzene are the prominent VOCs.

6. A generally small fraction of the priority pollutant organics in ground water are base/neutral extractable compounds, with 1,2-dichlorobenzene being the predominant member in this suite. The highest concentration was detected in Well 13I. Base/neutral organic compounds are generally in lower concentration and are less mobile than the VOCs, so areas impacted by these compounds are relatively small.

7. Low concentrations of acid-extractable organic compounds (as compared to VOCs) were detected in ground water samples; the highest values were recorded for Wells 13I and 21I. These wells are in areas where other priority pollutants were detected.

8. Polychlorinated biphenyls (PCBs) occur above 50 ppb in only one ground-water sample (from Well 23I). This location along with others where traces of PCBs were detected adjoin previously or currently existing drainage channels or creeks. Because PCB (Aroclor 1248) solubility in water is approximately 50 ppb, values above this level indicate the presence of sediment in the container with the aqueous sample.

9. Of the six or more metals analyzed for in ground water, only lead, chromium, and arsenic were detected above drinking-water standards in a small percentage of the samples, and in each instance, the concentrations

were not far in excess of the standard. The low metals concentrations demonstrate that the presence of metals in ground water under this site is not of substantive concern.

10. Of the five surface-water stations, organic compounds were detected at moderate levels only at ST-1 and ST-3. ST-1 may be impacted by discharging ground water. Much of the total detected at ST-3 is acetone, a compound that is not indicative of the site.

11. VOCs in unsaturated soils do not have a substantive impact on quality of the underlying ground water. Saturated soil quality appears to be biased by the presence of contaminated ground water. For base/neutral and phenolic compounds, the association between soil quality and the quality of the underlying ground water is more apparent.

12. Creek and channel sediments contain base/neutral and phenolic compounds that are also present at other locations including the wastewater lagoons. However, because of their high affinity for soils, the same compounds are barely detectable (if at all) in corresponding surface-water samples. PCBs were also detected in several sediment samples. Because they adsorb strongly, PCB transport, both onto and off of the site, will occur principally through the movement of sediments in the creek and channel beds.

13. Although both onsite and offsite sources of metals in creek and channel sediments cannot be separated, it appears that chromium may come in part from the wastewater lagoon sludges.

14. VOCs and base/neutral extractable organic compounds were present in sludge samples from both wastewater lagoons. Phenols (acid-extractable organic compounds), are present at lower levels and only in Lagoon 1.

Geraghty & Miller, Inc.

PHASE II INVESTIGATION
WATER AND SOIL CONDITIONS
UOP SITE
EAST RUTHERFORD, NEW JERSEY

INTRODUCTION

In accordance with the recommendations presented in the May 1984 preliminary (Phase I) report of ground-water conditions at the Universal Oil Products, Inc. (UOP) site in East Rutherford, New Jersey (location shown on Figure 1), and the provisions of the September 7, 1984 Addendum to the July 27, 1982 Administrative Consent Order (AACO) between UOP and the New Jersey Department of Environmental Protection (NJDEP), a Phase II investigation was initiated by Geraghty & Miller, Inc.

The Phase II investigation was implemented to fill data gaps identified by the evaluation of information collected under the Phase I program and to refine the understanding of conditions in contaminated areas. In order to accomplish these objectives, additional site-specific field information was collected between October 1984 and February 1985. Much of this information was obtained in connection with the drilling of new monitoring wells, the collection and analysis of soil samples, and the analysis of ground-water samples from all wells. A description of the procedures used to drill and install the new wells along with the construction details and the geologic logs for each are provided in Appendix A.

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0 1000 2000 FEET

FIGURE 1.

LOCATION OF UOP INC. SITE, EAST RUTHERFORD, NEW JERSEY.

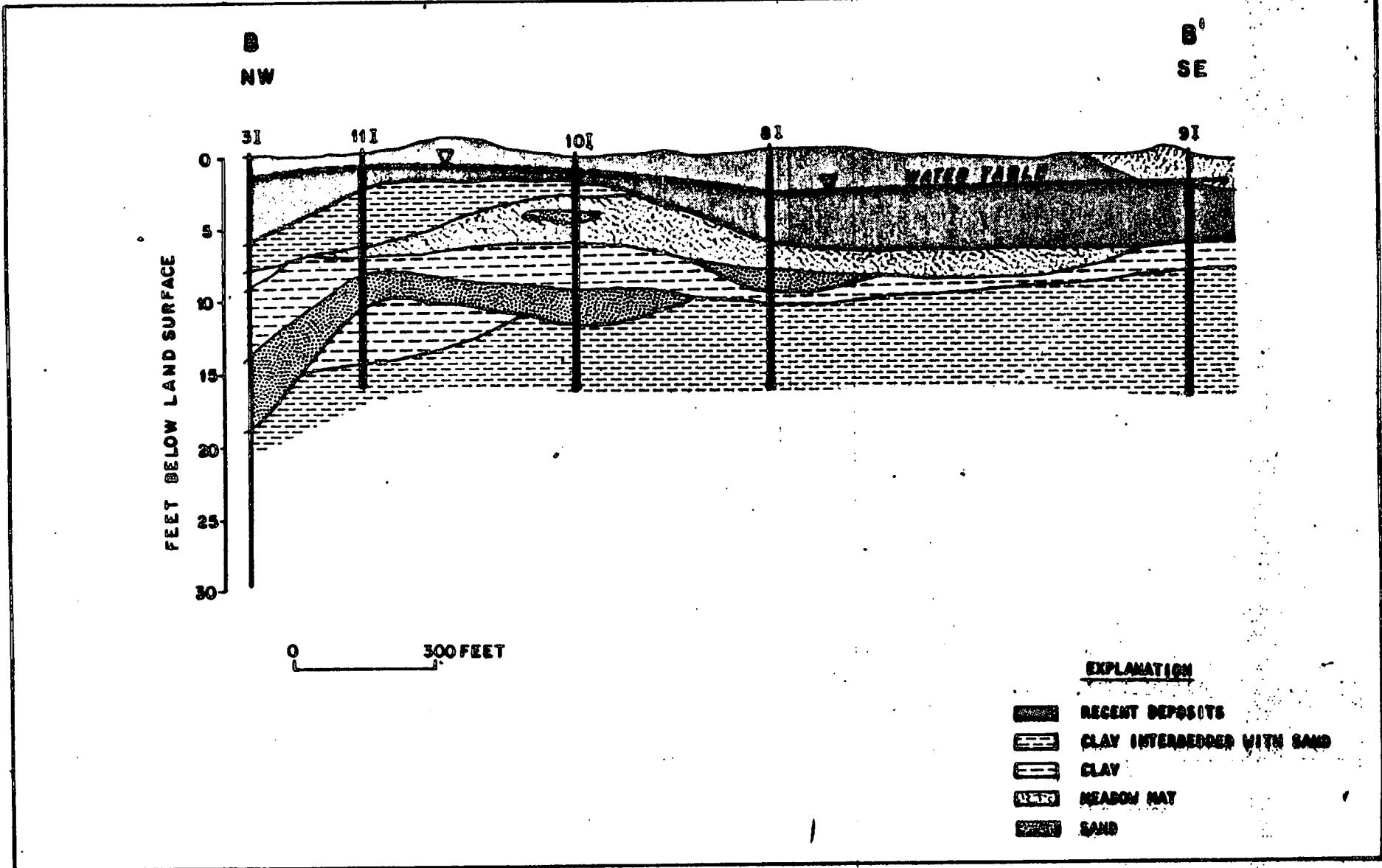
The remainder of the Phase II field investigation involved the collection of surface-water and sediment samples, the measurement of water levels in all new and existing monitoring wells and at remaining surface-water staff gauges, and the collection, description, and analysis of sludge samples obtained from the wastewater lagoons. The protocols used for the collection of all water, sediment, soil, and sludge samples are provided in Appendices A and B, and the results of the analytical testing performed on the samples is provided in Appendices B and C. The complete laboratory reports and associated QA/QC information is included as Appendix D and bound separately as Volume 2 of this report.

GEOLOGY

The geologic information obtained during the drilling of 15 additional water-table monitoring wells (12I through 26I) in October 1984, augmented the data base from Phase I to further characterize lithologic and stratigraphic conditions in the shallow overburden. The Phase II investigative drilling focused on the upper 20 feet of unconsolidated deposits because of the existing shallow water-table conditions (1 to 5 feet to water) and the likelihood that shallow peat deposits of low permeability occurring across the site have inhibited the migration of contaminants in the ground water.

Geologic cross sections are presented in Figures 2 through 7; the locations of the lines of section are shown on Plate 1. The uppermost stratigraphic unit is a layer of artificial deposits (fill) which ranges in thickness from 1 to 5 feet. Although these deposits appear to be continuous in the area where the main plant buildings once existed (west of the railroad tracks), they do not occur at all locations across the site. The artificial deposits are generally absent in the marshy, undeveloped area in the southeastern portion of the property.

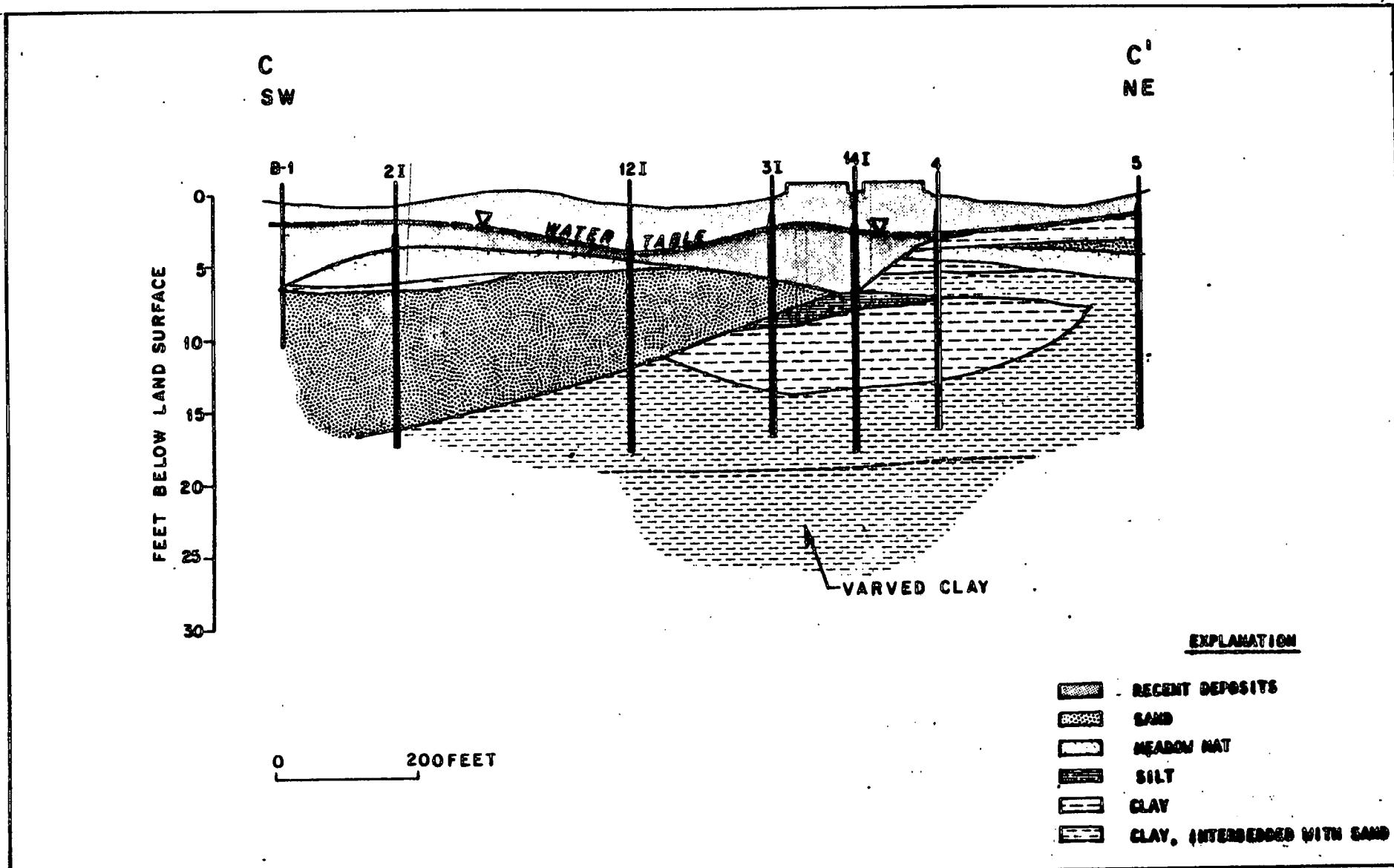
Directly beneath the artificial deposits lies a layer of low permeability meadow mat (peat) which reaches a thickness of 4 feet at some locations. Meadow-mat deposits were not observed at seven well locations (Boring 1, Well Clusters 3 and 7, and Wells 9I, 14I, 22I, and 23I). The absence of these deposits at Well Cluster 7 and Wells 9I, 22I, and 23I is attributable to the excavation of drainage channels intended to relieve flooding conditions. The channels were apparently cut through the meadow



NOTE: LINE OF SECTION ON PLATE 1

GEOLOGIC CROSS-SECTION B-B'

FIGURE 2



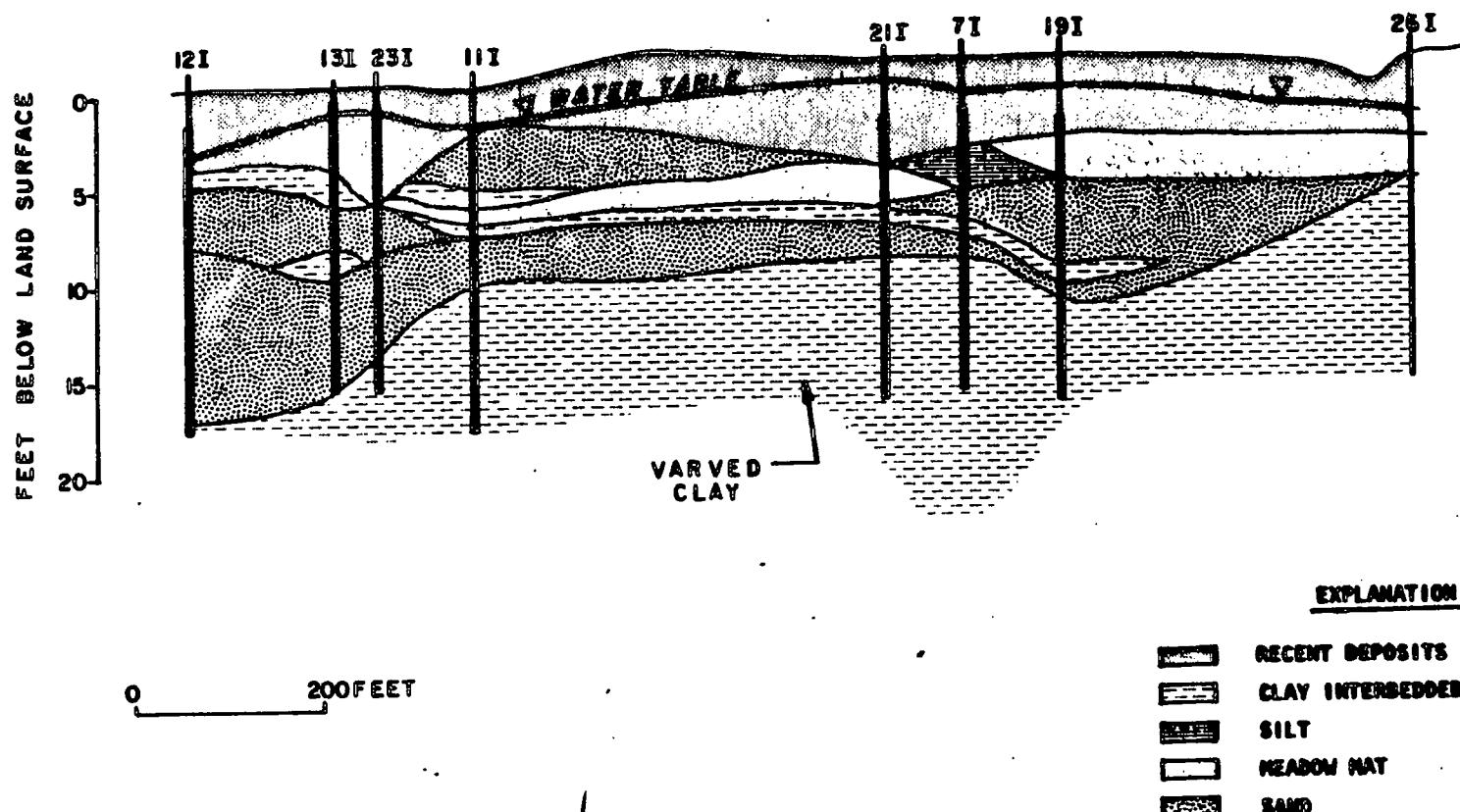
NOTE: LINE OF SECTION SHOWN ON PLATE 1

GEOLOGIC CROSS-SECTION C-C'

FIGURE 3

D
WEST

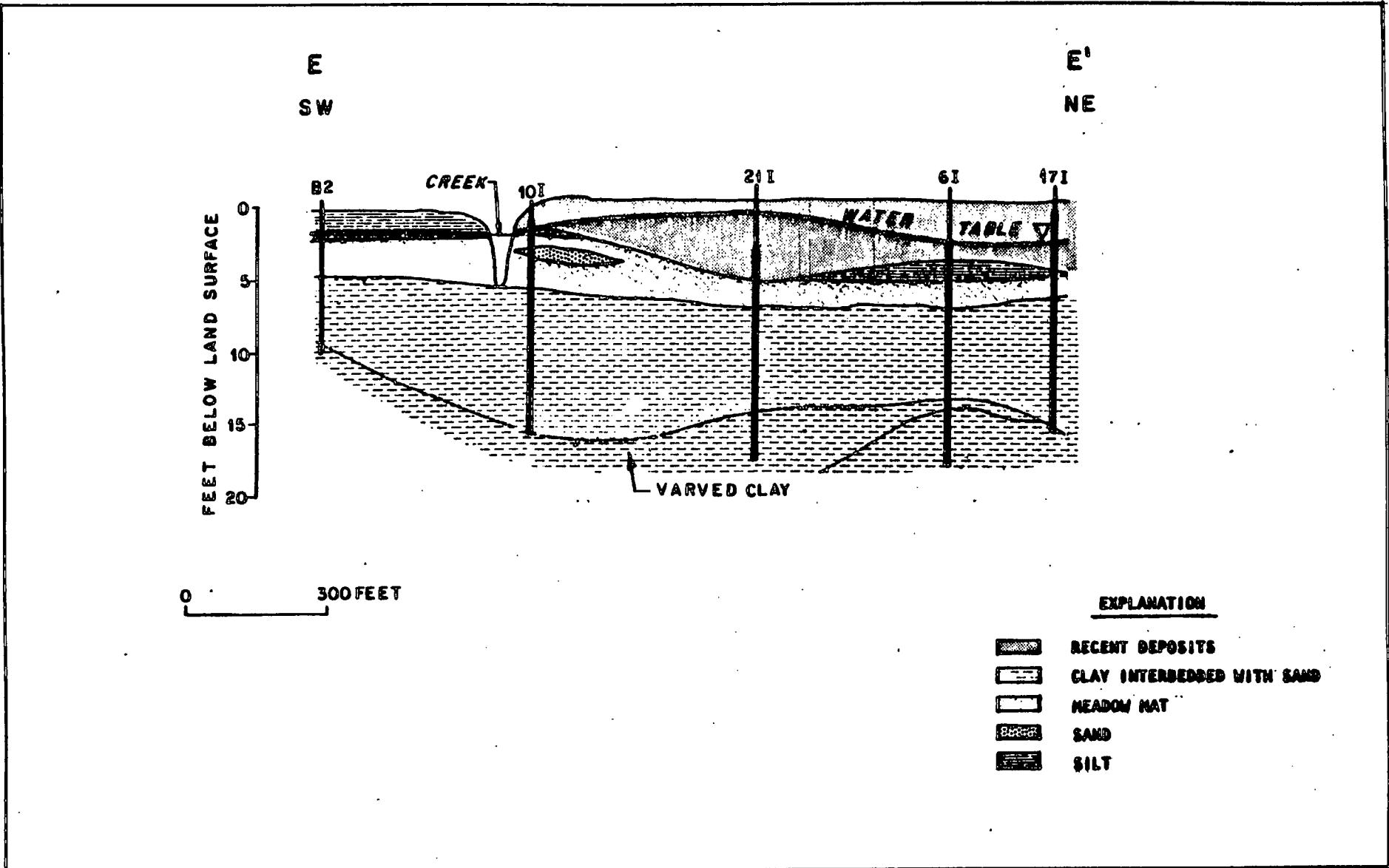
D'
EAST



NOTE: LINE OF SECTION SHOWN ON PLATE 1

GEOLOGIC CROSS-SECTION D-D'

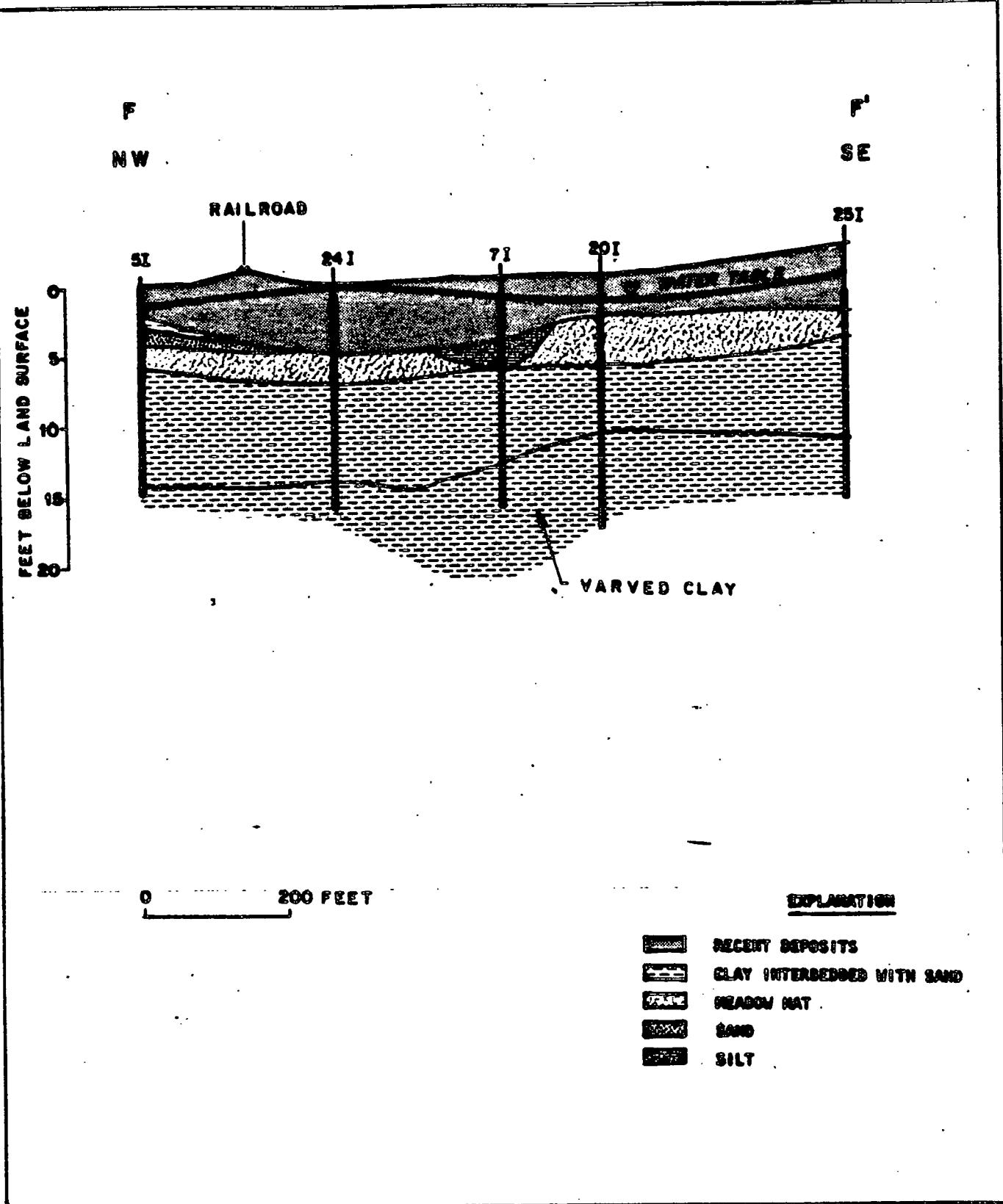
FIGURE 4



NOTE : LINE OF SECTION SHOWN ON PLATE I

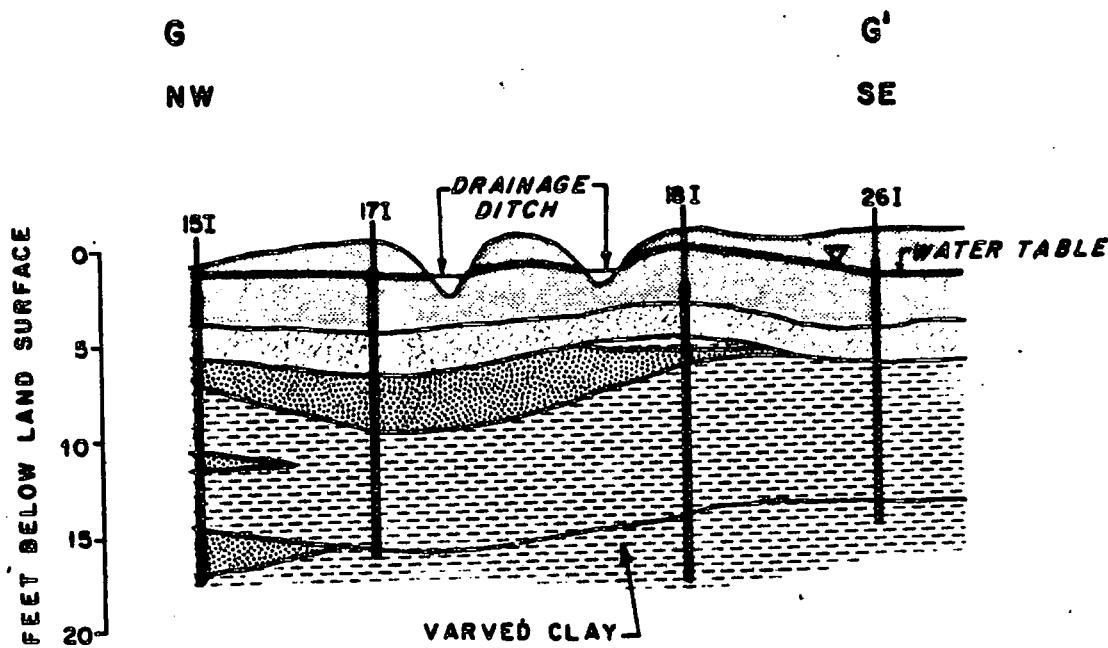
GEOLOGIC CROSS-SECTION E-E'

FIGURE 6



GEOLOGIC CROSS-SECTION F-F'

FIGURE 6



EXPLANATION

[RECENT DEPOSITS]	RECENT DEPOSITS
[CLAY]	CLAY
[SAND]	SAND
[MEADOW MAT]	MEADOW MAT

NOTE: LINE OF SECTION SHOWN ON PLATE 1

GEOLOGIC CROSS-SECTION G-G'

FIGURE 7

mat. In addition, natural conditions occasionally preclude the presence of the meadow mat as is the case in the vicinity of Boring 1 where the original creek appears to have either scoured away these deposits or prevented their deposition. Plate 2 shows the locations of the former drainage channels that were constructed on the property. The locations of these channels were identified using aerial photographs taken between 1940 and 1974. Most of these channels have been backfilled and are no longer readily visible.

Because of its widespread occurrence, shallow depth, and low permeability (between 1×10^{-6} and 1×10^{-7} cm/sec based on the results of the Phase I testing program), the meadow mat will act to substantially retard the vertical and horizontal migration of contaminants in the shallow system.

The meadow-mat deposits are underlain by 5 to 10 feet of silty clay layers that are interbedded with layers of fine sand. The results of laboratory tests indicate that the permeabilities for these deposits range from 8.6×10^{-3} cm/sec for the sand layers to 1.2×10^{-7} cm/sec for the clay layers.

Beneath the silty-sandy clay is a more competent (more pure) clay unit containing very thin layers of fine sand. This underlying unit is referred to as a varved clay. The varved clay varies in thickness from 5 feet at Well 3D to 25 feet thick at Well 7D. This deposit appears to be continuous throughout the plant area.

GROUND-WATER FLOW

Water-level measurements were taken at the 33 new and existing wells and at the locations of four surface-water staff gauges on several occasions between December 1984 and March 1985. A summary of this information is presented in Table 1. The data from two of these rounds are plotted and contoured (Plates 2 and 3) to illustrate the patterns of ground-water flow at and near the water table and the associated hydraulic gradients.

The water-table contours shown in Plate 2 indicate that ground-water flow in the shallow system is controlled by the presence of adjoining surface-water bodies. Ground water flows toward and discharges to the surface water bodies, thereby creating several water-table mounds and ground water divides throughout the study area.

Water-table mounds occur at the wastewater lagoons (Well MW17) and in the vicinity of Wells 13I and 23I. Most of the flow from the lagoons area discharges to Ackerman's Creek and adjoining drainage channels; a small portion of the flow from this area discharges to the west-southwest, toward Wells 2I, 16I, and MW3.

The mound near Wells 13I and 23I is probably caused by the surface flooding commonly observed at this location. The flooding in turn appears to be the result of periodic surface-water flow from the drainage channel containing Staff Gauge 3 to the area around Wells 13I and 23I which occurs during a rise in the stage of the water in the channel. Surface water is transported to the latter location through a culvert system located under

TABLE 1. SUMMARY OF WATER LEVEL DATA FOR MONITORING WELLS AT UOP INC.'S
PLANT IN EAST RUTHERFORD, NEW JERSEY

WELL NUMBER	DECEMBER 26, 1984			FEBRUARY 12, 1985			MARCH 5, 1985		
	ELEVATION of the TOP of CASING (feet above mean sea level)		GROUNDWATER DEPTH WATER (feet) to sea level)	ELEVATION of the TOP of CASING (feet above mean sea level)		GROUNDWATER DEPTH WATER (feet) to sea level)	ELEVATION of the TOP of CASING (feet above mean sea level)		GROUNDWATER DEPTH WATER (feet) to sea level)
	15	6.29	3.40	2.89	--	--	3.38	2.91	
2S	6.78	DRY	--	--	4.58	1.37	3.66	3.12	
2I	7.31	5.32	1.99	--	5.41	1.90	3.76	3.55	
3S	6.61	DRY	--	--	4.44	2.17	4.04	2.57	
3I	6.89	4.67	2.22	--	4.60	2.29	4.20	2.69	
3D	6.62	2.70	3.92	--	3.38	3.24	3.87	2.75	
4I	7.58	5.34	2.24	--	5.37	2.21	5.02	2.56	
5I	6.88	3.25	3.63	--	3.88	3.00	3.35	3.53	
6I	7.54	3.64	3.90	--	4.55	2.99	3.84	3.70	
7S	7.41	DRY	--	--	4.82	2.59	4.32	3.09	
7I	7.55	6.03	1.52	--	5.02	2.53	4.29	3.26	
7D	7.97	4.99	2.98	--	5.75	2.22	6.34	1.63	
8I	8.52	4.98	3.54	--	4.75	3.77	4.88	3.64	
9I	5.21	1.33	3.88	--	1.37	3.84	1.31	3.90	
10I	7.76	3.66	4.10	--	4.97	2.79	3.62	4.14	
11I	6.60	3.99	2.61	--	3.94	2.66	3.86	2.74	
12I	7.51	5.73	1.78	--	5.78	1.73	5.65	1.86	
13I	6.56	2.32	4.24	--	2.52	4.04	2.34	4.22	
14I	7.45	5.36	2.09	--	5.05	2.40	4.78	2.67	
15I*	5.58	1.12	4.46	--	1.25	4.33	1.24	4.34	
16I	7.49	6.82	0.67	--	6.68	0.81	6.30	1.19	
17I	7.56	3.99	3.57	--	4.50	3.06	3.88	3.68	
18I	6.59	3.15	3.44	--	3.60	2.99	2.78	3.81	
19I	8.09	4.28	3.81	--	4.98	3.11	3.68	4.41	
20I	7.94	4.40	3.54	--	4.79	3.15	3.70	4.24	
21I	8.35	4.48	3.87	--	5.32	3.03	2.60	5.75	
22I	7.09	5.78	1.31	--	4.78	2.31	4.99	2.10	
23I	6.28	2.50	3.78	--	2.46	3.82	2.02	4.26	
24I	7.13	3.52	3.61	--	3.51	3.62	1.55	5.58	
25I	6.95	2.97	3.98	--	3.30	3.65	2.94	4.01	
26I	8.30	4.42	3.88	--	4.72	3.58	4.52	3.78	
MW-3	5.79	3.79	2.00	--	3.88	1.91	3.83	1.96	
MW-17	5.85	2.13	3.72	--	2.67	3.18	2.10	3.75	

* - Indicates ice in well on February 12, 1985.

the railroad tracks which connects the two areas. The presence of the mound causes ground water in the vicinity of Wells 13I and 23I to flow in several directions with a portion discharging into the drainage channel in the area of Staff Gauge 3. Most of the remaining flow is directed toward the west and southwest.

In general, ground-water flow on the western side of the railroad tracks near Route 17 is towards the west. A study of aerial photographs indicates that this flow pattern has probably developed as a result of the influence of another ground-water discharge boundary (surface-water body) located on the western side of Route 17. A reconnaissance of this area indicated that the surface-water body extends from directly west of the water-table mound at Wells 13I and 23I, northward to Paterson Plank Road where it bends to the west.

Ground-water movement in the area around Well 22I is towards the drainage ditch that marks the northern border of the UOP property. The configuration of the 3-foot contour reflects the influence of the original meander of Ackerman's Creek which, having been filled in, now offers a more permeable pathway for ground-water flow than the adjoining undisturbed deposits. The increased permeabilities currently associated with such channels result from the replacement of the low permeability meadow mat deposits (10^{-6} cm/sec to 10^{-7} cm/sec) with more permeable sand and gravel which was used as fill.

A ground-water divide is present between the 3-foot contours located on either side of Wells 15I and 24I. Therefore, ground water in this area

will either move west toward Route 17 and south towards Ackerman's Creek, or flow toward Wells 22I and 7I, and discharge into the drainage ditch along the property's northern boundary. These flow paths are identified by the ground-water flow arrows shown in Plate 2.

The flow patterns discussed above (developed from February 12, 1985 water-level measurements) are supported by the March 5, 1985 water-table contour map shown in Plate 3. Although at first glance, the March 5 map appears more complex as a result of an increased number of contour lines, the overall pattern of flow depicted on the two maps is the same. The differences in detail are caused by the variable recharging effects of precipitation.

In general, the influences of the surface-water bodies and historical drainage features cause ground water at or near the water table over the western third of the site (west of the railroad) to flow in the direction of Route 17. These same hydraulic influences cause the shallow flow system over the remainder of the site to discharge directly to adjacent onsite surface waters. These conclusions agree with the findings of the 1983 Phase I investigation and indicate that no previously unidentified stresses are acting on the shallow flow system within the boundaries of the plant site.

SAMPLING AND ANALYSIS METHODOLOGY

Ground-water, surface-water, soil, sediment, and lagoon sludge samples were collected for chemical testing between October 1984 and January 1985 from many locations across the UOP site. A description of the procedures used to collect the samples in each of these categories along with a summary of all the chemical data from the Phase I and Phase II investigations is provided in Appendix B. All of the samples were collected and hand delivered to the laboratory by Geraghty & Miller, Inc., and all sampling activities were monitored by the NJDEP which was provided the opportunity to take split samples.

Soil analyses were performed by CompuChem Laboratory, Chapel Hill, North Carolina; the ground-water, surface-water, sediment, and sludge analyses were performed by Measurement Sciences Corporation (Garden City, New York) and its affiliate California Analytical Laboratories, Inc. (West Sacramento, California). Approximately 20 percent of the water samples were replicated and kept laboratory blind as part of the QA/QC procedures employed by Geraghty & Miller, Inc. to evaluate the precision of the reported values. In addition, trip blanks and field blanks were routinely used and analyzed to help identify whether any of the results have been biased by sample contamination during field handling, transport, laboratory preparation, storage, and testing.

GROUND-WATER QUALITY

Ground-water samples were collected during the Phase II investigation from all 33 new and existing onsite monitoring wells during December 4-8, 1984. In accordance with the program stipulated in the September 7, 1984 AACO, samples were analyzed for:

- Volatile organic compounds
- Base/neutral organic compounds
- Phenols
- Total organic carbon
- Heavy metals (arsenic, cadmium, chromium, iron, lead, manganese, and zinc)
- Cyanide
- Specific conductance
- pH

Similarly, in compliance with the AACO, samples from newly installed Monitoring Wells 12I through 26I were analyzed for:

- Full priority pollutants + extra peak search (up to 40 compounds)
- Total organic carbon
- Specific conductance
- pH

The procedures used to purge and sample the monitoring wells and results of the analyses of ground-water samples collected in November 1983 and December 1984 are provided in Appendix B, Table B-1.

The results of the ground-water analyses indicate that there are two principal areas of contamination at the site, as shown by the values listed on Plate 4. The areas are identified by groups of wells listed in Table 2 in order of decreasing total of priority pollutant volatile, base/neutral, and acid extractable organic compounds.

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Table 2. Wells With High Total Concentrations of Volatiles, Base/Neutral Extractable, and Acid-Extractable Organic Compounds, 1984, UOP Inc., East Rutherford, New Jersey.

Area 1

Northeastern Portion of the Former Plant Site

<u>Well</u>	Total Organic Concentration ug/L
17I	57,000
6I	31,000
21I	18,000
24I	9,300
19I	7,700
12I	2,000

Area 2

Northwestern Portion of the Former Plant Area

<u>Well</u>	Total Organic Concentration ug/L
13I	230,000
14I	2,900
23I	2,300
3I	2,200
16I	2,100
12I	2,000

Note: The totals were calculated from the results of USEPA Priority Pollutant Analyses, volatile, base/neutral extractable, and acid-extractable fractions and rounded to two significant figures. The wells are listed in order of decreasing total within each area.

The remaining wells at the UOP site exhibit total concentrations for volatile, base/neutral-extractable and acid-extractable organic compounds of less than 1,000 ug/L, including Well MW17 (total: 730 ug/L), which is in an old wastewater lagoon, an area originally considered to have high-level contamination.

Volatile Organic Compounds

Volatile organic compounds (VOCs) account for more than three quarters of the organics in the areas with the highest organics concentrations, as well as at other locations where priority pollutants have been detected at lower levels. The distribution of VOCs is illustrated in Plate 5. The prominent VOCs are benzene, toluene, and chlorobenzene.

Plate 5 indicates that the VOCs total exceeds 1,000 ppb (1 ppm) in three areas, centered on Wells 6I, 13I, and 14I. However, based on an assessment of ground-water flow patterns in the shallow system, the "halo" of VOCs surrounding Wells 6I and 17I, which extends out to Wells 19I, 21I, and 24I, does not appear to be entirely attributable to migration from the core area (between Wells 6I and 17I). Flow in the area around Wells 19I, 21I, and 24I is directed towards the drainage ditch that borders the northern portion of the property making it impossible under current conditions for a source in the immediate area of Wells 6I and 17I to account for the VOCs present further to the south and southwest.

Another probable source area is located in the immediate vicinity of Well 13I where the volatile organics content in ground water is considerably greater than in neighboring areas and greater than the highest levels reported for either Well 6I or Well 17I. The configuration of the body of contaminated ground water extending away from Well 13I, primarily to the west, is a function of the prevailing ground-water flow pattern.

The third local area where the total of VOCs exceeds 1,000 ppb in the ground water is near Well 14I. Although low values were measured at Well 3I, the proximity and the occurrence of the same constituents indicate the possibility that the areas around Wells 13I and 14I are actually part of one impacted area.

In addition to the probable source areas identified above, the old wastewater lagoons may also be a source of VOCs. A ground-water mound is present beneath the lagoons, resulting in discharge to the drainage channels that adjoin three sides of the lagoons and a small component of flow towards Route 17. Well 16I is west of the lagoons and adjacent to Route 17. Two volatile compounds (vinyl chloride and 1,2-trans-dichloroethylene) were detected both in Well 16I and in lagoon Well MW17, suggesting that some contamination is migrating westward from the lagoons.

Base/Neutral-Extractable Organic Compounds

Base/neutral-extractable organic compounds constitute about one-tenth of the total of priority pollutant organics detected across the study area,

with 1,2-dichlorobenzene being the predominant constituent in this suite. The distribution of base/neutral compounds is illustrated in Plate 6.

Two areas have ground water which shows the highest concentrations of base/neutral extractable compounds:

- (1) near Wells 3I, 13I, and 14I, and
- (2) near Wells 19I, 21I, 22I, and 24I.

The available information suggests that the various base/neutral compounds have not traveled very far in the ground-water system. First, unlike the distribution of VOCs where a limited number of the same compounds are present throughout the plumes, the specific base/neutral compounds detected during the site investigations frequently vary from well to well. The possibility of small sources with local impact is indicated. Second, the low permeability of the shallow deposits and high adsorption potential of the soils for most base/neutral compounds limits the contaminant migration velocity. As an example, no base/neutral compounds were detected in Well 12I, despite its being only 200 feet downgradient of and along the flow lines from Well 13I where total base/neutral concentrations in the ground water exceed 20,000 ug/L.

Two other areas with lower concentrations of total base/neutral extractable compounds are:

1. Near Well MW17, which is used to monitor the quality of ground water under the westernmost wastewater lagoon. The presence of base/neutral compounds here probably reflects the impact of the lagoons.
2. Near Wells 8I and 25I. There is no sure explanation for the presence of base/neutral compounds in excess of 500 ppb at Well 25I. The possi-

bility exists that the quality of ground water in the areas immediately adjoining the old surface-water drainage channels may have been degraded by roadway runoff that discharged to these surface-water channels during rain storms.

While the highest concentrations of VOCs and base/neutral compounds do coincide at Well 13I, the peaks of concentrations are not always at the same place as is apparent from a comparison of Plates 5 and 6. For example, Wells 6I and 17I exhibit high total volatile concentrations (greater than 40,000 ug/L), while the peak in concentrations of total base/ neutrals in this part of the site occurs further south near Wells 19I, 21I, 22I, and 24I. Similarly, 213 ug/L of total VOCs were measured in Well 3I, whereas the total concentration of base/neutral compounds reported for this well is 2,240 ug/L, an order of magnitude greater.

Acid-Extractable Organic Compounds

Acid-extractable compounds (phenolics) comprise only about 2 percent of the priority pollutant organics reported for the study area. The distribution of these compounds is shown in Plate 7, where it can be seen that elevated levels of acid-extractable compounds occur at Well 21I (5,063 ug/L) and Well 13I (1,070 ug/L). These two wells mark the same general areas identified previously as principal areas where volatile and base/neutral- organic compounds were measured in ground water.

The predominant phenolic compound identified in the sample from Well 21I is 4-(1,1-dimethylethyl) phenol; this compound is also present at lower

concentration in Well 24I, which is located 250 feet north of Well 21I. Wells 21I and 24I are located near the ground-water divide and as a result, it is reasonable to conclude that phenolic compounds are migrating to the east and west in response to the hydraulic gradients present throughout this area.

Well 13I contains one of the highest levels of total phenols detected on the site; this well also had high levels of volatile and base/neutral compounds. However, the concentrations of phenols are lower than for the other classes of organics. The phenolic compounds are distributed almost radially around Well 13I, clearly reflecting the influence of the water-table mound in this area. However, the area impacted by phenolics is considerably less than that impacted by volatile organic compounds. In contrast to the VOCs distribution, detectable quantities of phenols in the ground water barely reach Well 12I. This is principally attributed to the fact that the probable source and concentration gradients for phenols are smaller than those for volatile or base/neutral compounds in this area.

Ground-water samples from Well MW17 located in the western wastewater lagoon, exhibit total phenol concentrations of only 26 ug/L. However, in view of the fact that analyses of saturated sludge from the lagoons yielded concentrations for total phenols of greater than 20,000 ug/kg, these lagoons are considered a source area for this suite of compounds. Ground-water flow from this area to the west-southwest is probably responsible for the phenolics detected in Well MW3.

Polychlorinated Biphenyls

Aroclor 1248, a polychlorinated biphenyl (PCB) was detected in the ground water at the locations of Wells 23I (1,100 ug/L), 25I (46 ug/L), 13I (22 ug/L), 15I (13 ug/L), and 26I (4.3 ug/L). All of the locations adjoin previously or currently existing drainage channels and creeks on the UOP property (Plate 4). Sediment samples collected from selected locations in the various water drainage channels and creeks have PCB concentrations greater than those reported in the water samples. More detail on sediment quality is provided below.

It appears that the PCB levels observed in the ground water may be the result of its presence in nearby sediments. The origin of the sediments is unknown; however, it is possible that they were transported from one or more offsite locations and deposited at the UOP site during major storms. Well 23I, which provided ground-water samples with the highest concentrations of PCBs, is located close to a major storm sewer which receives flow from the main drainage channel that cuts across the site just north of the wastewater lagoons. Sediments removed from the main channel and connecting storm sewer sump contained the highest PCB concentrations detected at the site. It is possible that PCB contaminated sediments escaped from the sewer line (through ruptures or cracks) and affected the quality of the ground water around Well 23I. Moreover, the aqueous solubility of Aroclor 1248 in water is approximately 50 ug/L, indicating that most of the 1,100

ug/L reported in the unfiltered water sample from Well 23I was sorbed onto suspended particulate matter. As none of the water samples analyzed for PCBs were filtered, the concentrations reported for the other water samples found to contain Aroclor 1248 are unlikely to be representative of actual water-quality conditions.

In the event that sediments containing PCBs have been spread by the normal flow of surface waters through the drainage channels and storm sewer system, the impacts appear to be limited because no PCBs were detected in Wells 9I, 10I, 11I, 17I, and 18I, all of which are located adjacent to surface-water channels.

Metals and Cyanide

All of the ground-water samples collected during this investigation were analyzed for a minimum of six different metals (arsenic, cadmium, chromium, lead, mercury, and zinc). Maximum levels have been established for all of these metals in drinking-water supplies by the Federal Primary and Secondary Drinking Water Standards (40 CFR 141). Of the six for which concentration standards exist, none of the results reported for mercury, cadmium, and zinc exceed the established standards. The ranges of concentrations for the three remaining metals are discussed below.

Lead: Only one well (26I) out of the 33 sampled in 1984 produced ground water containing lead concentrations in excess of the 0.05 mg/L standard (0.14 mg/L). This represents 3 percent of the data base and is a substantial reduction from the 8 of 18 samples (44 percent) collected in 1983 which exceeded the standard.

Chromium: As was the case for lead, chromium was only found to exceed the standard of 0.05 mg/L at Well 26I where a concentration of 0.15 mg/L was reported.

Arsenic: Arsenic was detected at concentrations in excess of the 0.05 mg/L standard in samples from Wells 7I (0.06 mg/L), 11I (0.11 mg/L), and MW17 (0.066 mg/L) which accounts for 9 percent of the total number of samples collected in 1984.

All three metals (lead, chromium, and arsenic) sometimes occur in New Jersey ground water at levels just above drinking water standards (as is the case here) with natural sources (minerals) being the only reasonable explanation. Considering the organics present at the site, no remedial action is appropriate for these trace occurrences of metals.

Samples from selected monitoring wells were also analyzed for manganese, zinc, iron, antimony, cyanide, beryllium, copper, nickel, selenium, silver, and thallium. None of the ground-water samples contained concentrations of zinc, copper, selenium, or silver in excess of their respective standards. There are no promulgated concentration standards for antimony, thallium, cyanide, nickel, and beryllium. However, concentrations for all but antimony were generally found to be near or below detection levels. Manganese was found at concentrations exceeding the standard of 0.05 mg/L in 16 of 18 water samples while iron concentrations exceed the 0.3 mg/L standard in 14 of 18 wells tested. The widespread presence of both of these metals does not reflect the impacts of plant activities but rather the natural effects of a reducing environment which characterizes the

marshes and glaciolacustrine sediments present throughout the site.

Ground-Water Quality Summary

The results of the 1984 ground-water sampling effort support the Phase I investigation finding that ground-water is not affected by a homogeneous plume which encompasses the shallow ground-water system over the entire study area. Rather, the impacts on the ground water are localized, resulting in shallow ground-water conditions characterized by a heterogeneous blend of organic compounds and concentrations. For example, the sample from Well 17I contains 35,000 ug/L of benzene and seven additional compounds, resulting in a total organic concentration of 57,000 ug/L. However, no organic compounds (VOCs, base/neutral, or acid-extractable compounds) were detected at Well 15I, which is located only 180 feet to the northwest. Local flow patterns account for this variability with Well 15I located hydraulically upgradient from Well 17I.

Similarly, Well 22I exhibits a total organic concentration of 5,800 ug/L, while Well 19I located approximately 100 feet away contains organic compounds totalling 7,700 ug/L. In the case of Well 22I, 15 different compounds are responsible for the total organic concentration while only three chemicals account for the higher concentrations in Well 19I.

These examples are typical of the heterogeneous ground-water quality conditions present at the site. The information from this sampling round confirms the previous observation that most of the ground-water impacts occur in the areas where the plant buildings and storage facilities once

stood. Moreover, the results of the analyses performed on ground-water samples from Wells 8I, 9I, 10I, 18I, 20I, 25I, and 26I, located throughout the undeveloped southeastern portion of the site support this conclusion by exhibiting little or no degradation of ground-water quality.

SURFACE-WATER QUALITY

Surface-water samples were collected coincident with the December 1984 sampling of the onsite monitoring wells. The locations of the surface-water monitoring stations utilized during the recent investigation are listed below and are also shown on Plates 1 and 4.

<u>Station Designation</u>	<u>Location</u>
ST-1	Adjoining Staff Gauge 1
ST-3	Adjoining Staff Gauge 4
ST-6	Confluence of Ackerman's Creek and its main (onsite) tributary
ST-7	Creek southeast of Monitoring Well MW17
ST-8	Ackerman's Creek on the east side of Murray Hill Parkway

Samples collected at these locations were analyzed for the constituents specified in the AACO:

- Volatile organic compounds (VOCs)
- Base/neutral organic compounds
- Phenols
- Total organic carbon
- Cyanide
- Heavy Metals (arsenic, cadmium, chromium, iron, lead, manganese, mercury, and zinc)

The results of the analyses performed on these samples (Table B-2) along with the protocol used to collect them are provided in Appendix B.

In general, more than 50 percent of the priority pollutant organic constituents detected in the surface-water samples are VOCs and approximately 40 percent are base/neutral extractable compounds. The remainder is composed of various phenolic compounds which have not been differentiated.

The highest concentration of VOCs, base/neutral extractable and phenolic compounds in the surface-water samples was found at Monitoring Station ST-3 where 14 different compounds accounted for a total concentration of nearly 5,100 ug/L.

Despite the presence of 14 compounds, acetone and total phenols constitute over three-quarters of the identified organics at this surface-water location. Acetone is not indicative of the site; it was quantified at substantive levels in only one of two replicates in ground water samples from Well 24I. The sporadic occurrence of this compound is not readily explained. The only other surface-water monitoring station exhibiting total concentrations greater than 100 ug/L is ST-1 (500 ug/L); 14 different contaminants were identified at this location.

The water-table maps presented in Plates 2 and 3 identify on-site locations where ground water is discharging to surface water. For example, the drainage ditch in which Monitoring Station ST-1 is located likely intercepts ground water moving from the area of Wells 17I, 6I, 22I, 7I, 21I, 19I, 24I, 20I, and 18I. Of the 14 compounds quantified in the ST-1 surface-water sample, 11 were detected in those wells.

QUALITY OF THE SHALLOW UNCONSOLIDATED DEPOSITS

Selected soil samples collected during the drilling of the 15 new monitoring wells were analyzed to determine the location and possible extent of source areas that could give rise to ground-water contamination. The program involved collecting, preserving, and analyzing surficial (0 to 2 feet) split-spoon samples from each of the new well sites. Additional samples from greater depths were also obtained and prepared for analysis wherever initial field screening procedures indicated the presence of organic compounds. Soil samples collected in this manner were analyzed for the following constituents as specified in the AACO:

- Volatile organic compounds
- Base/neutral organic compounds
- Phenols
- pH
- Cyanide
- Heavy metals (arsenic, cadmium, chromium, lead, manganese, and zinc)

The results of the analyses on these soil samples (Table B-3), along with a discussion of the procedures used to collect them, are provided in Appendix B.

The shallow nature of the water table has resulted in the saturation of many of the surficial samples. This introduces a potential bias when assessing soil contamination resulting from spills or leaks; an unknown part of the total concentrations measured in a saturated core may be there because it was brought into the area by moving ground water.

Volatile Organic Compounds

The distribution of VOCs in soil samples collected throughout the study area is illustrated in Plate 8. The highest VOC concentrations were measured in saturated soil samples. Ground-water analyses at these locations also indicated the presence of volatile organics in the shallow flow system suggesting that the quality of the saturated soil samples are likely to have been affected by local ground-water quality conditions.

VOC concentrations reported for unsaturated soil samples ranged from not detected to 540 ug/kg. The highest concentrations are as follows:

<u>Unsaturated Soil Sample Locations</u>	<u>Total Volatile Concentration (ug/kg)</u>
Well 21I, 0 - 2 feet	540
Well 15I, 0 - 2 feet	130
Well 16I, 0 - 2 feet	94
Well 19I, 0 - 2 feet	19
Well 26I, 0 - 2 feet	19

Table 3 compares the results of analyses on ground water and unsaturated soil samples collected at three locations of known or suspected contamination. It is apparent that the soils are not the principal source of the underlying ground-water contamination. None of the volatiles detected in the unsaturated soil samples from Well 21I were detected in the ground water at the same location, nor are the concentrations of toluene, the only compound detected in the soils at the locations of Wells 16I and 19I (Plate 8), able to account for the considerable variety of VOCs identified in ground-water samples from both wells.

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Table 3. Comparison of Total Volatile Concentrations in Ground-Water and Soil Samples From the Same Location.

Well No.	<u>Total Volatile Concentration</u>	
	Ground Water (ug/L)	Unsaturated Soil (ug/kg)
<u>1st Area</u>		
17I	56,000	ND
19I	5,700	19
22I	2,600	ND
24I	4,000	ND
21I	7,700	540
<u>2nd Area</u>		
12I	2,000	ND
16I	2,100	94
<u>3rd Area</u>		
14I	1,600	ND

ND - Not detected

Note: Total concentrations rounded to two significant figures.

It is also interesting to note from the information presented on Plate 8 that the principal VOCs detected in the soil are toluene, benzene, and ethylbenzene. This combination of chemicals is characteristic of gasoline and may reflect the impact of motor vehicles.

Base/Neutral Extractable Organic Compounds

The distribution of base/neutral organic compounds detected in soil samples obtained during the drilling program is illustrated in Plate 9. Some of the same compounds were reported for the soil and ground-water samples collected at Wells 14I, 24I, and 25I indicating the possibility that the soil quality has materially affected ground-water quality at these locations. The unsaturated soil sample at Well 14I has 1,2-dichlorobenzene, as does the ground water at that well. Similarly, the unsaturated soil sample obtained at Well 24I contains a suite of compounds that are also present in low concentrations in the underlying ground water. Finally, the unsaturated soil at Well 25I suggests that a source area for bis(2-ethylhexyl)phthalate detected in the ground water at Well 25I is nearby. The base/neutral compounds that are present in other unsaturated and saturated soil samples are not present in the underlying ground water; evidently, soils in these areas are not affecting ground-water quality.

Phenolic Compounds

The results of analyses for total phenolic compounds on unsaturated soil samples indicate that, at the following two locations, surficial soil

constituents have migrated to the water table:

Well Location	Total Phenols in Unsaturated Soil (ug/kg)	Total Phenols in Ground Water (ug/L)
21I	370,000	5,100
22I	1,600	780

Moderate levels of phenols are also present in the unsaturated soils at Well 12I (4,200 ug/kg) and 24I (1,000 ug/kg), but the concentrations in the underlying ground water at these two locations are so low (<100 ug/L) that the impact of soils on ground water at these locations is not clear. Unsaturated soil samples from Wells 15I, 20I, and 25I also contain phenolic compounds, but these constituents were not detected in ground-water analyses at their respective well locations.

Metals and Cyanide

Concentrations of cyanide, arsenic, cadmium, chromium, lead, manganese, and zinc varied considerably among soil sample locations. No one soil sample exhibited consistently high or low concentrations for these constituents.

QUALITY OF CREEK AND CHANNEL SEDIMENTS

Sediment samples were collected at the following seven locations in the creeks and drainage channels present in the study areas:

<u>Station Designation</u>	<u>Location</u>
SS-2	By Staff Gauge 5
SS-6	About 3 feet upstream of Staff Gauge 1
SS-7	In the proximity of Staff Gauge 3
SS-8	West of the lagoons near Well 1
SS-9	From the sump on the opposite side of the railroad tracks from Staff Gauge 3. This is a catch basin for the area's storm drains.
SS-10	South of the Murray Hill Parkway just below the stream culvert
SS-11	At the end of the channel directly across from Well 9I

As specified in the AACO, sediment samples were analyzed for the following constituents:

- Base/neutral organic compounds
- Phenols
- Cyanide
- Heavy metals (arsenic, cadmium, chromium, lead, manganese, mercury, and zinc)

The results of the analyses on the seven sediment samples are provided in Table B-4.

Base/Neutral Organic Compounds

In order of decreasing magnitude, the total base/neutral concentrations for the seven sediment samples are:

<u>Sample</u>	Total Base/Neutral Concentration (ug/kg)
SS-6	1,600,000
SS-9	45,000
SS-7	30,000
SS-8	14,000
SS-2	12,000
SS-11	6,500
SS-10	2,000

The distribution of the total base/neutral concentrations for sediments is illustrated in Plate 4. All of the sediment samples except SS-6 were collected in Ackerman's Creek and its tributaries. The high value in SS-6 comes entirely from 1,2 dichlorobenzene.

The six sediment samples that were collected from Ackerman's Creek and its tributaries all contain base/neutral compounds that are present in high concentrations in the wastewater lagoons; sediment samples collected closest to the lagoons (SS-7, SS-8, SS-9) exhibit the greatest concentrations of base/neutral compounds. Note that the base/neutral concentrations represent the quality of the sediments; these constituents do not substantially degrade the quality of surface water, as shown by the total base/neutral concentrations in surface-water samples that were collected at several sediment sample locations:

<u>Surface-Water Sample</u>		<u>Corresponding Sediment Sample</u>	
<u>Location</u>	<u>Total Base/Neutral Concentration (ug/L)</u>	<u>Location</u>	<u>Total Base/Neutral Concentration (ug/kg)</u>
ST-1	42 ug/L	SS-6	1,600,000
ST-7	2 ug/L	SS-8	14,000
ST-8	6 ug/L	SS-10	2,000

In addition, because the sediment samples exhibit substantially higher concentrations of base/neutral compounds as compared with those of surface-water samples and adjacent ground-water samples, it is improbable that either the surface or ground water is responsible for the chemical quality of the sediments. The base/neutral compounds were probably sorbed onto sediment particles and transported throughout the drainage system as a suspended load or as a bed load.

The sediments from the drainage ditch in the vicinity of SS-6 exhibit concentrations of 1,2-dichlorobenzene that are substantially greater than for any sediment sample from Ackerman's Creek or from any sludge sample from the old wastewater lagoons. Hence, this contaminant was not transported from the old lagoons through the drainage channels to its present location. Also ground-water and soils analyses in the vicinity of SS-6 do not exhibit 1,2-dichlorobenzene concentrations that are nearly as great as the concentration for SS-6.

Acid-Extractable Organic Compounds

Priority pollutant acid-extractable compounds were detected by GC/MS analysis only at SS-8, and at that location only the compound phenol at 100 ug/kg was detected. Discharge from the wastewater lagoons (which contain phenol) may be the source.

Sediment samples were analyzed for total phenolics (wet chemical analysis) with the following results:

<u>Sediment Sample</u>	<u>Concentration ug/kg)</u>
SS-6	38,000
SS-7	2,700
SS-9	1,700
SS-2	1,300
SS-8	1,000
SS-11	100
SS-10	<500

The difference between these data and those described above for SS-8 arises from the presence of acid-extractable compounds that are not priority pollutants.

Phenolic compounds were detected in the sample from Well 17I at nearly 500 ug/L. Ground-water discharges from the area of this well into the drainage ditch containing SS-6 contributed to the phenolics measured in the SS-6 sediment sample. In the Ackerman's Creek drainage system, phenolic compound concentrations are highest at SS-2, SS-7, SS-8, and SS-9 and appear to result at least in part from discharge from the old wastewater lagoons and from ground water flowing in the area of Wells 13I and 23I. The lagoons and these wells all had phenol concentrations of 150 ppb or more.

Polychlorinated Biphenyls

Although not required by the AACO, polychlorinated biphenyls (PCBs) were tested for in sediment samples. Aroclor 1248, the predominant PCB, was quantified in sediment samples from SS-9 (300,000 ug/kg), SS-2 (230,000 ug/kg), SS-8 (100,000 ug/kg), and SS-10 (13,000 ug/kg). As illustrated in Plate 4, PCBs concentrations are the greatest in the drainage channel that

contains SS-2, SS-8, and SS-9, and decrease in concentration towards Berry's Creek (SS-10, SS-11). PCBs were also detected at trace levels in ground-water samples from Wells 13I, 23I, 15I, 26I, and 25I, which are all located adjacent to the current or former drainage channels.

The aqueous solubility of Aroclor 1248 is 54 ug/L at 25°C, which is orders of magnitude lower than the concentrations detected in creek sediment. The difference illustrates the strong affinity of PCBs for the sediments; no PCBs were detected in the surface-water samples and only trace quantities were detected in ground-water samples. We conclude that transport of PCBs in the study area is principally by the movement of sediment in the creeks.

Metals and Cyanide

Because of the heavy industrialization (onsite and offsite) in the area and the movement of sediment over the years, it is not easy to designate background values for metals and cyanide. In addition, as with the organics, pinpointing sources is difficult. However, it does appear that the impact of the old wastewater lagoons can be measured in sediments from nearby locations. Chromium concentrations in sediment are relatively high near the lagoons at SS-2 (4,100 mg/kg) and SS-8 (5,200 mg/kg). As described below, chromium was found to be leachable from lagoon soils (see Table C-2). Although arsenic values at stream sediment locations are also relatively high (for example, 50 mg/kg at SS-2), little arsenic is leachable from lagoon soils (Table C-2) which therefore cannot be designated as an arsenic source.

The quality of sediment at SS-6 is somewhat different from that elsewhere because the drainage ditch at that location has not been connected to Ackerman's Creek for at least six years. There is no evidence to suggest that contamination from the wastewater lagoons has affected the sediments at SS-6 (chromium in SS-6 sediments is low). However, cyanide is somewhat higher at SS-6 (2.5 mg/kg) than at other sediment sampling stations. Even though cyanides are generally soluble, none were detected in the surface water at the same location (sampling designation ST-1). Insufficient information is available to propose a source, if any, for the cyanide.

SOIL QUALITY IN WASTEWATER LAGOONS

The wastewater lagoons were sampled during January 1985 using methods outlined in the drilling and sampling plan (Appendix A). Borings were made at 26 locations as shown on Figure 8, nine in each of the two lagoons and eight borings outside the lagoons. In the lagoons, samples from three depths were submitted for analysis; one from the sludge layer, the second from the underlying unsaturated peaty soil, and the third from the saturated soil zone (deeper still). Outside the lagoons, only two samples (unsaturated and saturated soils) were taken at each location.

The following analyses were performed on the samples:

- Volatile organic compounds
- Base/neutral organic compounds
- Phenols
- Heavy metals (lead, chromium, cadmium, arsenic, zinc, and manganese)
- Cyanide
- pH

A complete listing of results is included in Appendix C, Table C-2.

Volatile Organic Compounds

The predominant VOCs are aromatic, including toluene, benzene, xylenes, ethylbenzene, and chlorobenzene. In Lagoon 1, the total volatile concentration exceeds 100,000 ug/kg (ppb) in the top 3 to 4 feet which includes the sludge layer and the underlying unsaturated peaty soil. Concentrations are one or more orders of magnitude lower in the deepest (saturated) layer that was sampled. Cross sections showing depths of samples and total volatile concentrations are shown in Figure 9.

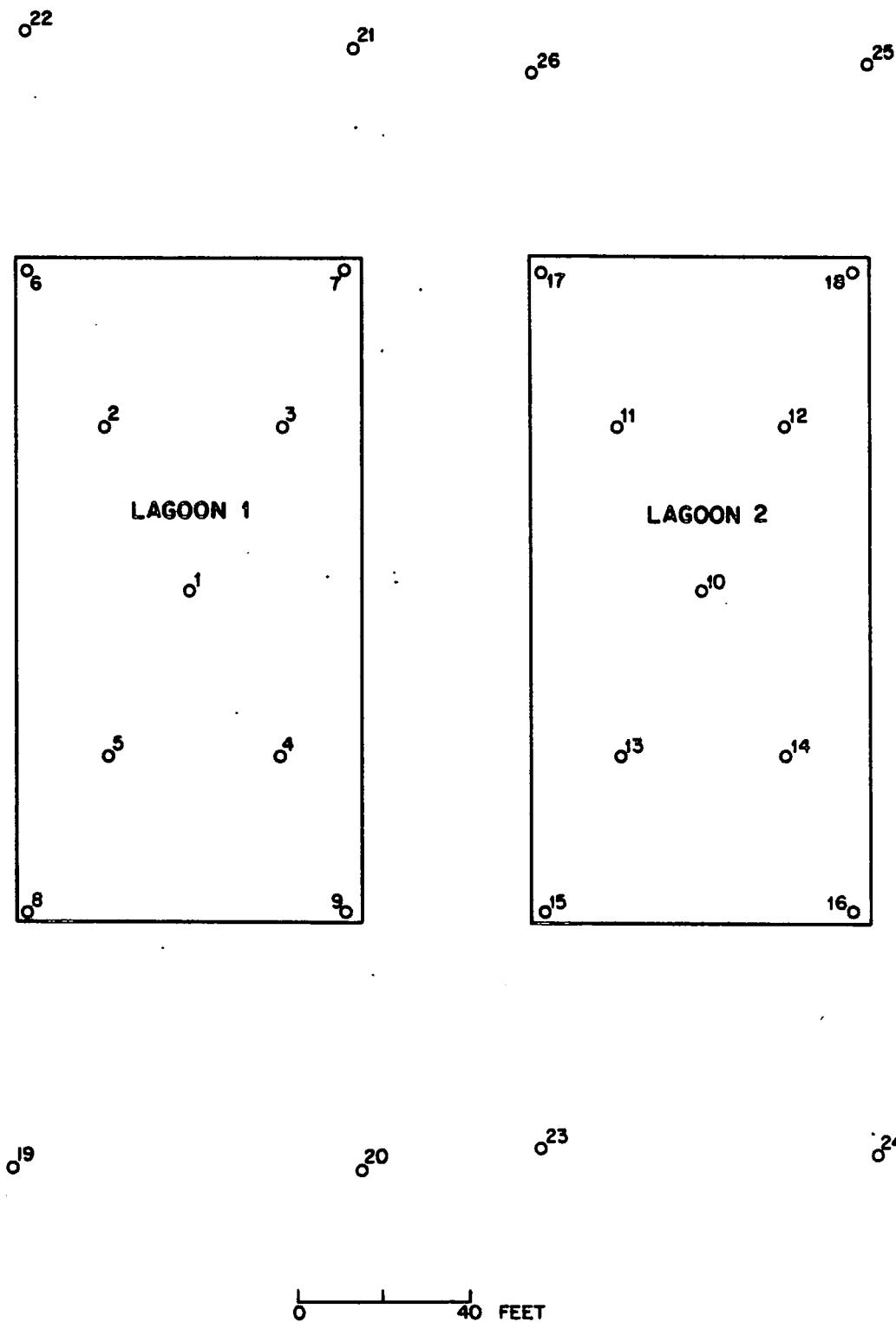
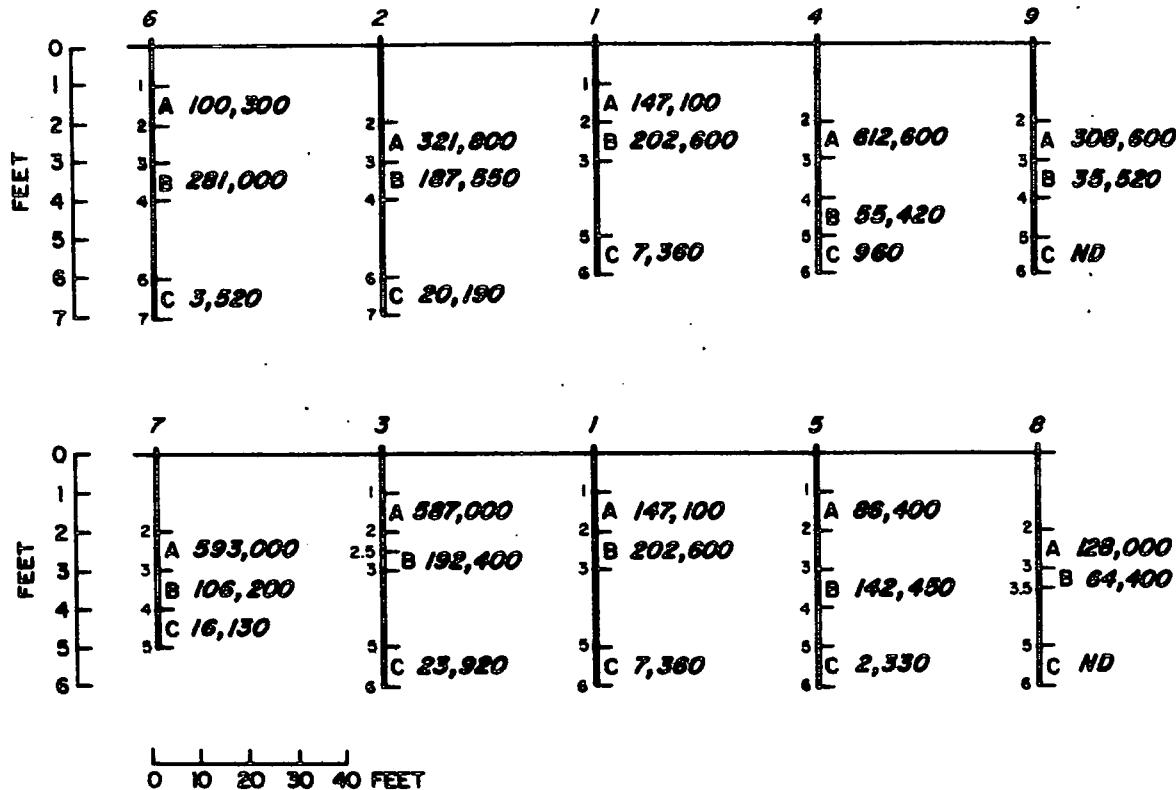
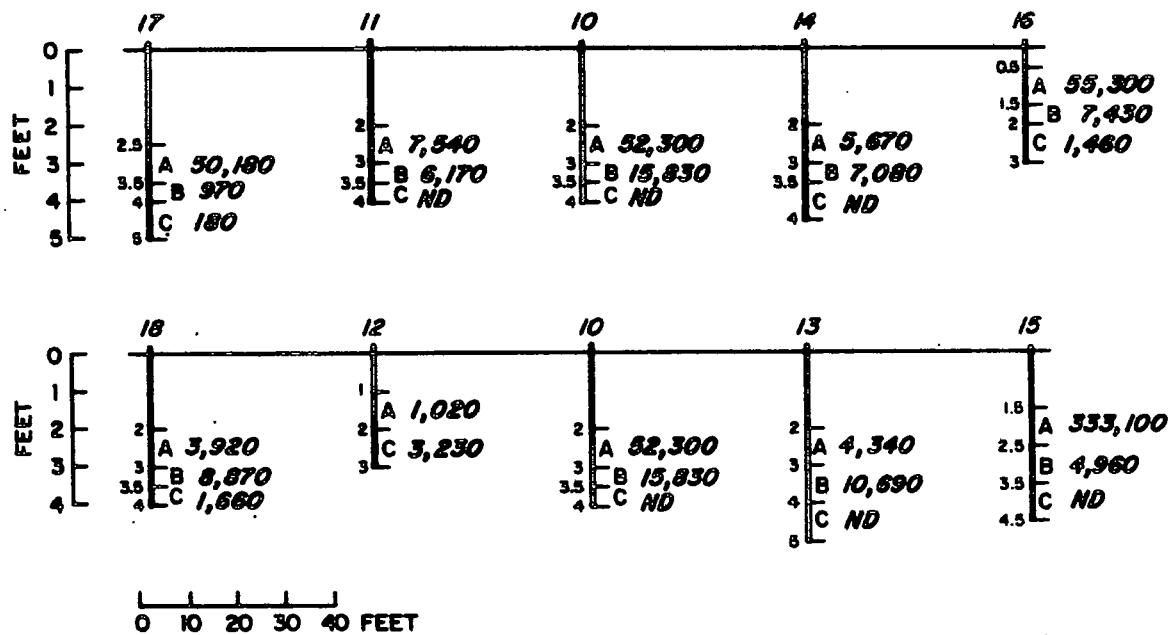


Figure 8. Locations of Sampling Points In and Around Wastewater Lagoons, UOP, Inc., East Rutherford, New Jersey.

LAGOON 1



LAGOON 2



KEY: A — SATURATED SLUDGE
 B — UNSATURATED ZONE BENEATH SLUDGE (PEAT)
 C — SATURATED CLAY

CONCENTRATION TOTALS IN MICROGRAMS
 PER KILOGRAM

Figure 9. Cross Sections Through the Wastewater Lagoons Showing Totals for Volatile Organic Compounds, January, 1985, UOP, Inc., East Rutherford, New Jersey.

The concentrations of VOCs in Lagoon 2 are lower than they are in Lagoon 1. Only one value in Lagoon 2 exceeds 100,000 ug/kg (333,000 ug/kg in Boring 15); concentrations in other shallow samples were approximately 50,000 ug/kg or less (Figure 9). As in Lagoon 2, concentrations drop off substantially (generally to levels below detection) below 3 to 4 feet.

Base/Neutral Extractable Organic Compounds

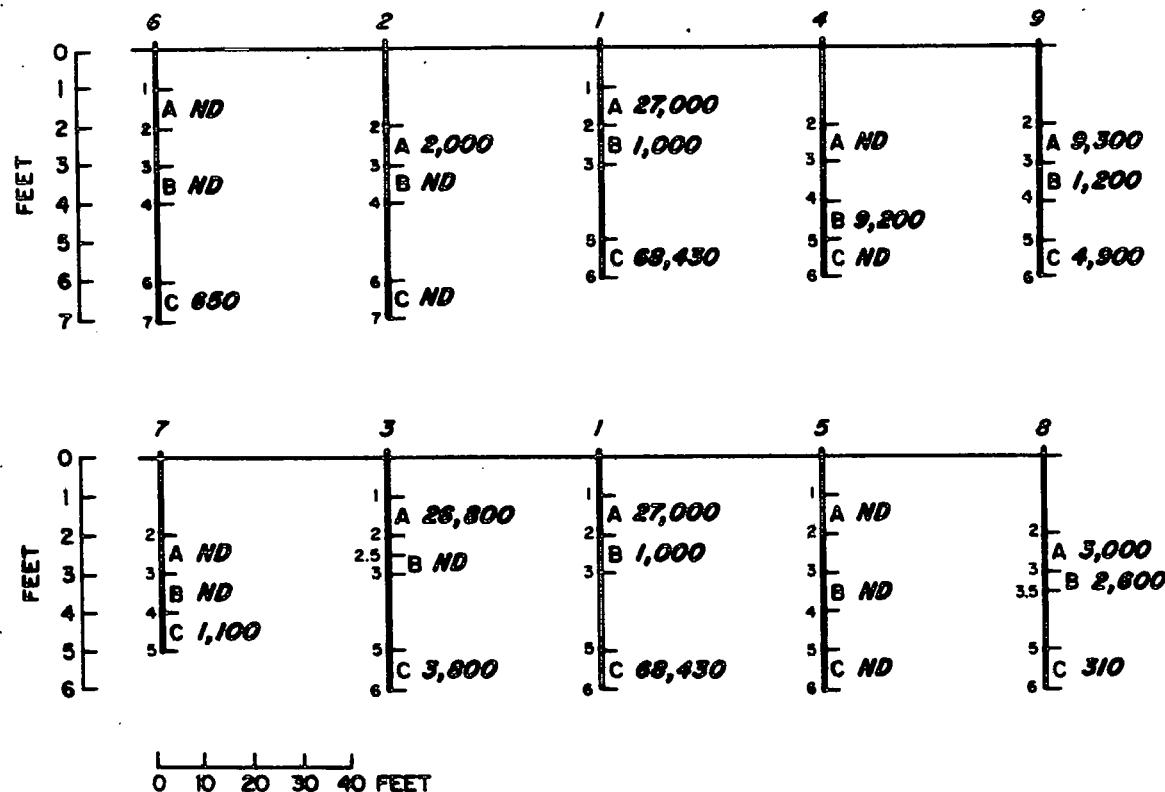
Among the compounds in this suite, several polynuclear aromatic hydrocarbons, chlorinated benzenes, and phthalates (bis(2-ethylhexyl) and di-n-butyl phthalates) are prominent. In Lagoon 1, base/neutral compounds were detected in 15 of 27 samples tested. The depth interval with the highest concentration varies from boring to boring as shown on Figure 10; the highest value of 68,000 ug/kg was reported for the 3- to 6-foot sample in Boring 1.

The stratification of base/neutral compounds is more pronounced in Lagoon 2 as shown in Figure 10. The highest concentrations are in the first (shallow) zone with low or non-detectable values in the third (saturated) zone.

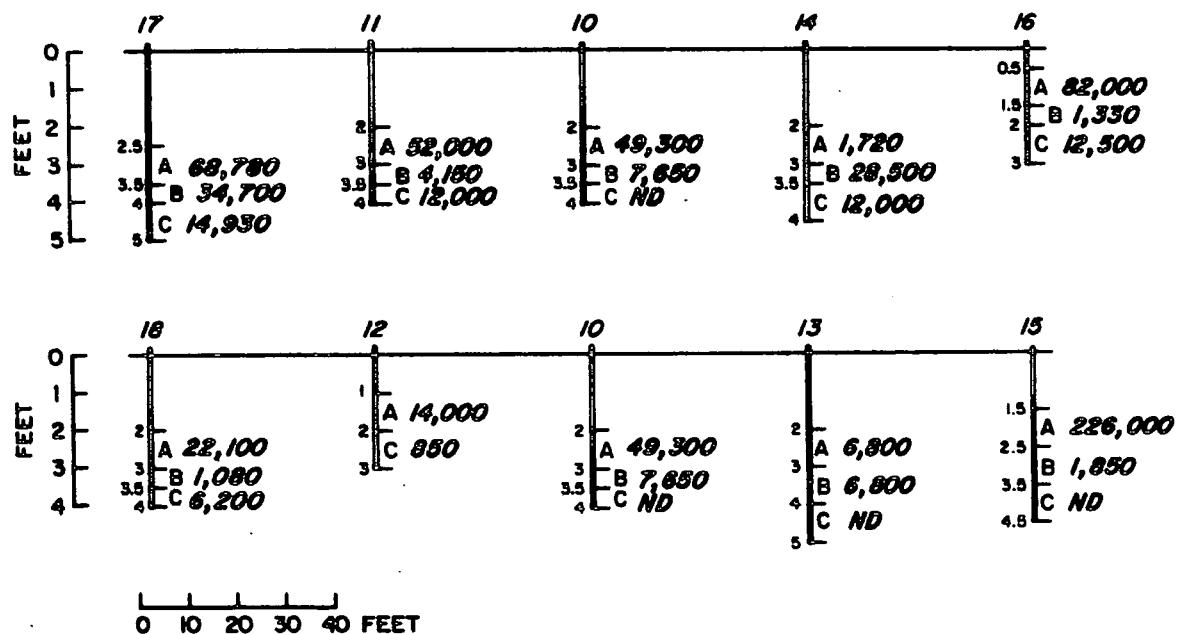
Acid-Extractable Organic Compounds

Phenol predominated among the acid-extractable compounds that were quantified. In Lagoon 1, the highest values are in the second (middle) zone which is an unsaturated peaty soil (Figure 11). The highest value is 24 mg/kg. The limited amounts of phenol detected in the shallow sludge layer together with the knowledge that phenols occur naturally, suggests

LAGOON 1



LAGOON 2

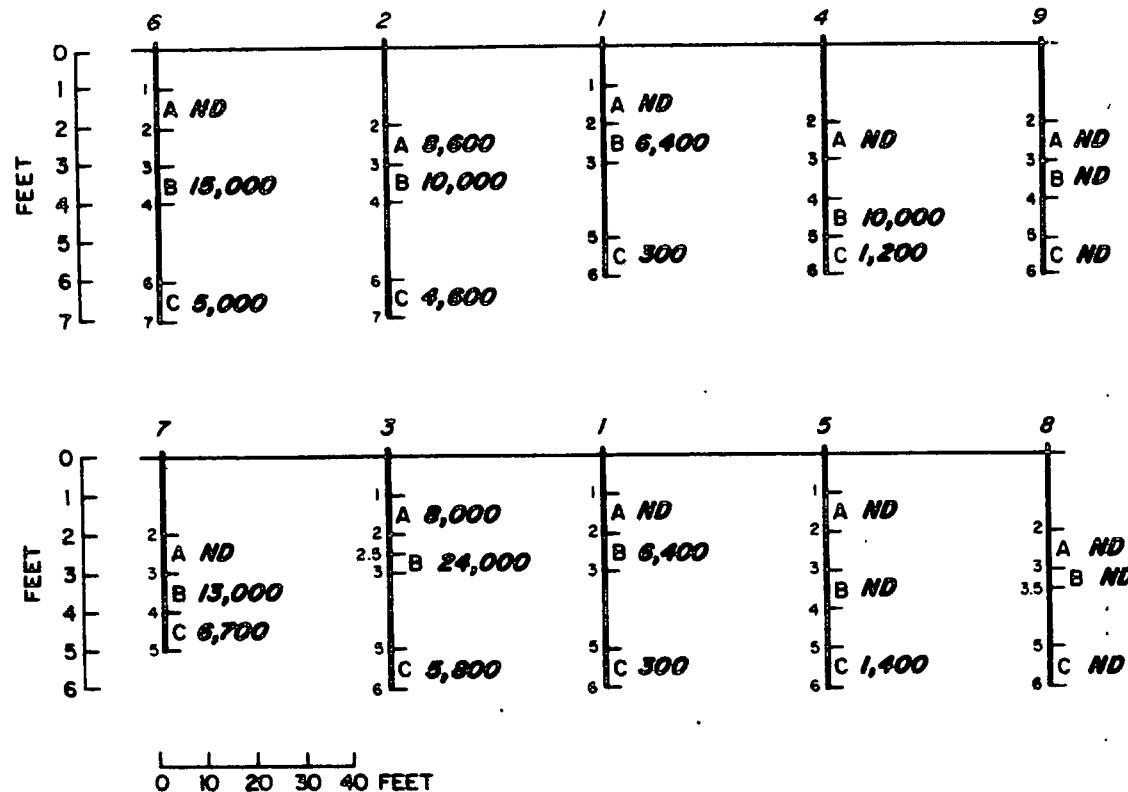


KEY: A — SATURATED SLUDGE
B — UNSATURATED ZONE BENEATH SLUDGE (PEAT)
C — SATURATED CLAY

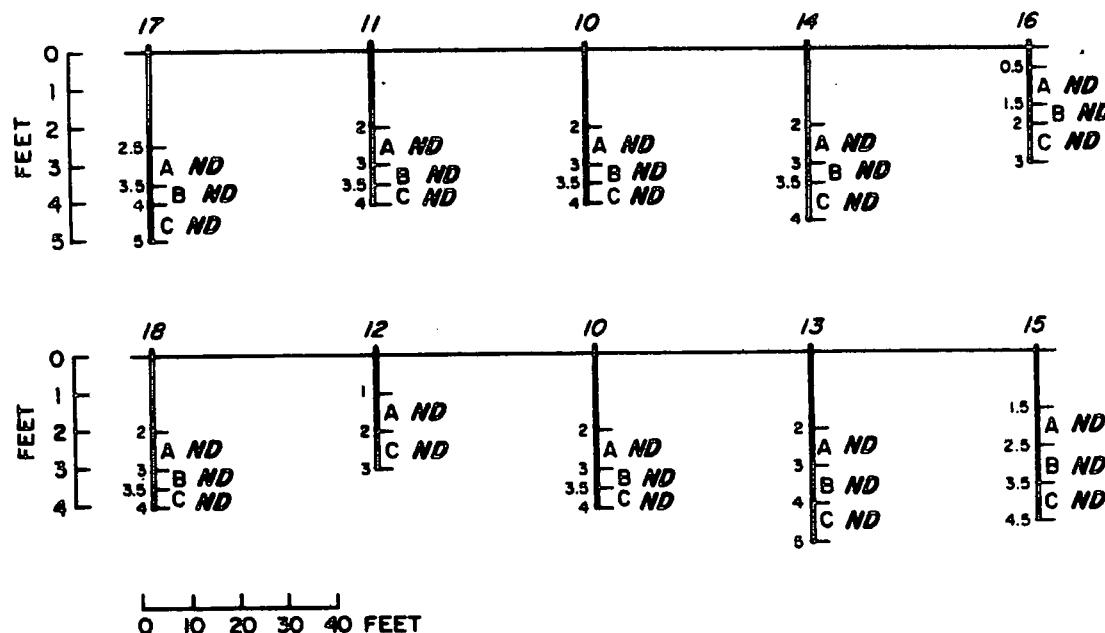
CONCENTRATION TOTALS IN MICROGRAMS
PER KILOGRAM

Figure 10. Cross Sections Through the Wastewater Lagoons Showing Totals for Base/Neutral Extractable Organic Compounds, January 1985, UOP, Inc., East Rutherford, New Jersey.

LAGOON 1



LAGOON 2



KEY: A — SATURATED SLUDGE
B — UNSATURATED ZONE BENEATH SLUDGE (PEAT)
C — SATURATED CLAY

CONCENTRATION TOTALS IN MICROGRAMS
PER KILOGRAM

Figure 11. Cross Sections Through the Wastewater Lagoons Showing Totals for Acid-Extractable Organic Compounds, January 1985, UOP, Inc., East Rutherford, New Jersey.

that most of the phenols are not attributable to previous waste disposal activities. No acid-extractable compounds were detected in Lagoon 2.

Other Analyses

Of the metals tested for by the EP Toxicity protocol, only chromium exceeded the criterion (5 mg/L), and only in five shallow (sludge) samples in Lagoon 1. No middle or deep samples in the 26 borings or shallow samples in Lagoon 2 exceeded the criterion.

Although there is no numerical criterion for cyanide, the highest values, commonly over 20 mg/kg, were reported for shallow samples in both lagoons. We do not consider the presence of either cyanide or chromium to be of consequence in comparison to the much larger presence of organic compounds.

No pesticides were detected in any sample. PCBs were detected at low levels (less than 5 mg/kg) in samples from Borings 21 and 22 which are outside the lagoons. No PCBs were detected in lagoon samples.

Respectfully submitted,

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APPENDIX A

FIELD INVESTIGATION PROGRAM

Well Installation and Soil Sampling Methodology

Figure A-1. Generalized Monitoring Well Construction Details

Table A-1. Lithologic Logs of Monitoring Wells and Soil Borings

Table A-2. Summary of Construction Details for Monitoring Wells
12I Through 26I

WELL INSTALLATION AND SOIL SAMPLING METHODOLOGY

Fifteen water-table (intermediate) monitoring wells were installed at UOP, Inc.'s East Rutherford, New Jersey, site, during October 15-19, 1984. The drilling was performed by Diamond Drilling Co., Inc. (Jackson, New Jersey) under the observation of Geraghty & Miller, Inc. In addition, personnel from the New Jersey Department of Environmental Protection (NJDEP) were present during the drilling and installation of the wells.

Each of the 15 new monitoring wells consists of 15 feet of 2-inch diameter, 10-slot (.010 inch) Johnson stainless-steel screen threaded onto 2-inch diameter steel casing. The wells were drilled to depths of between 15 and 19 feet with the screens set approximately 1 to 2 feet above the existing water table in each hole. The screens were installed in this manner to accommodate seasonal fluctuations in the elevation of the water table and thereby insure that the wells provide information representative of water-table conditions throughout the year. In areas where the existing water table was less than 1 foot beneath land surface, well screens were set as near land surface as the placement of an annular grout seal would allow.

The wells were gravel packed with the pack extending several feet above the top of the screen in each well. The annular space above the gravel pack was filled with a layer of granular bentonite and then grouted to land surface with concrete.

The bentonite seal and concrete collar prevent the rapid infiltration of surface-water runoff and/or precipitation to the well screen through the

more permeable annular space. Finally, an outer steel casing with locking cap was installed over the well and cemented in place to provide protection and prevent unauthorized access.

In accordance with the Addendum to the Administrative Consent Order (AACO), split-spoon samples were collected from 0 to 2 feet and at 5-foot intervals thereafter at each well location. All of the soil samples collected in this manner were examined in the field for the presence of contamination. Discoloration of the soil, chemical odor, and presence of photoionization-sensitive compounds (identified using an HNU photoionization detector) were the criteria used to determine the probable presence of organic residues in soil.

All samples suspected of containing residues along with all of the 0-to 2-foot split-spoon samples were placed in bottles supplied by the analyzing laboratory (CompuChem Laboratories, Inc., Chapel Hill, North Carolina) and stored in coolers at 4°C for no longer than two days prior to express delivery to CompuChem Laboratories. A total of 22 soil samples were retained for laboratory analyses in connection with this drilling program.

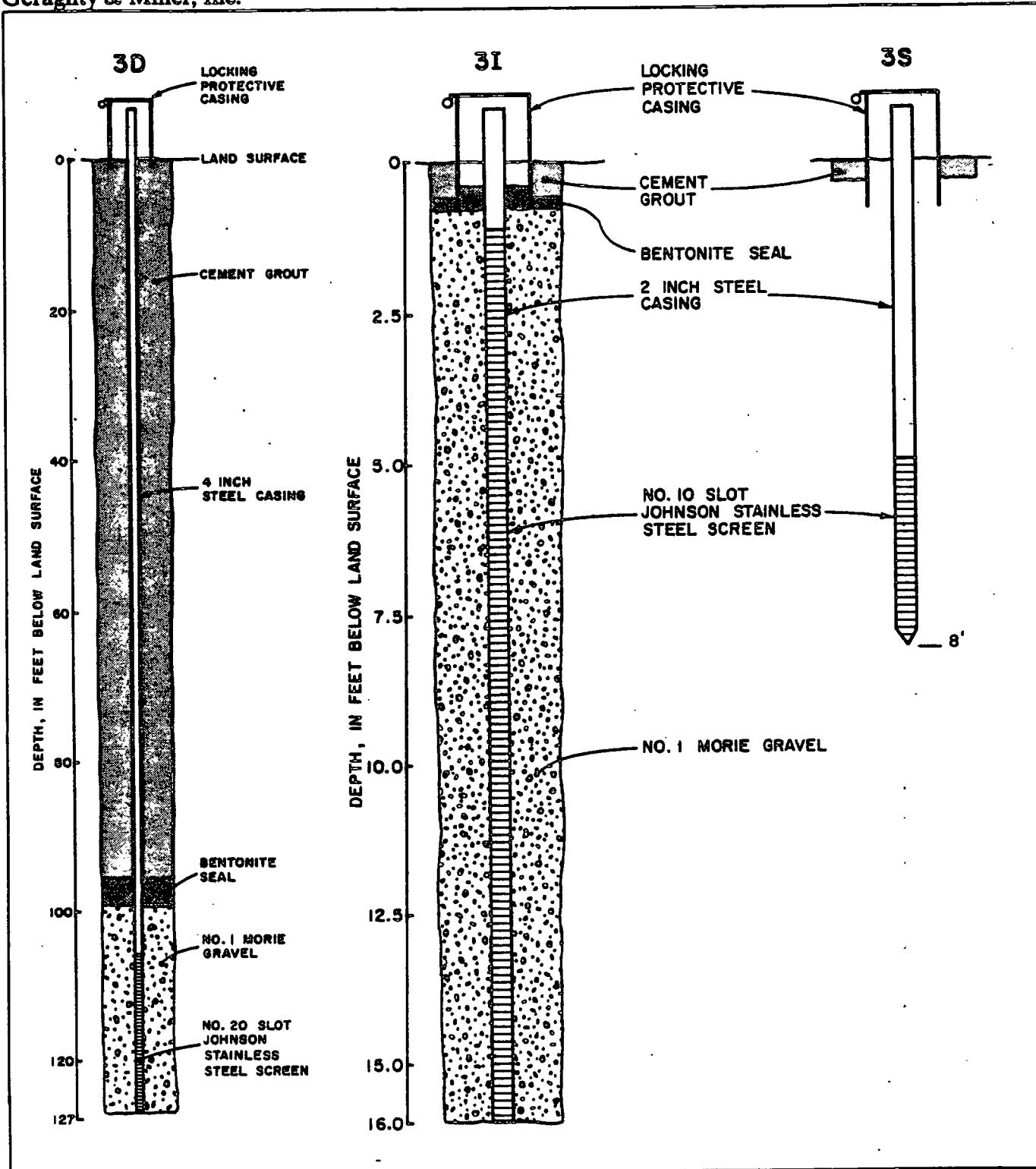


FIGURE A-1 - GENERALIZED MONITORING WELL CONSTRUCTION DETAILS
UOP Inc., East Rutherford, New Jersey.

Table A-1. Lithologic Logs of Monitoring Wells and Soil Borings at Universal Oil Products Site, East Rutherford, New Jersey.

<u>Lithologic Description</u>	<u>Depth (feet)</u>	<u>Thickness (feet)</u>
<u>Wells 2S, 2I</u>		
Sand, medium to fine, black silt, red bricks, stones, clay.	0 - 3	3
Meadow mat, brown peat; dark gray clay	3 - 5.5	2.5
Clay, blue to gray, silty; trace of fine sand	5.5- 6	0.5
Sand, gray, medium to fine, silty; trace of clay	6 - 15.5	9.5
Clay, gray, pasty; interbedded with layers of fine gray sand	15.5- 18	2.5
<u>Wells 3S, 3I, 3D</u>		
Sand, fine to medium, red and gray; stones	0 - 2	2
Sand, fine to medium, reddish-brown; stones and rock fragments; fine gravel	2 - 6	4
Sand, fine; gray pasty clay	6 - 8	2
Silt, black	8 - 9	1
Clay, gray; trace of silt	9 - 14	5
Sand, medium to fine; little clay; trace of silt	14 - 19	5
Clay, gray, interbedded with layers of fine to medium gray sand	19 - 28	9
Clay, gray and reddish-brown; interbedded with lenses of fine to medium gray sand	28 - 48	20
Clay, gray and reddish-brown; interbedded with thin lenses of dark gray silt	48 - 68	20
Sand, fine to silt, reddish-brown, clayey; interbedded with layers of gray pasty clay and medium to fine sand	68 - 88	20
Sand, reddish-brown, fine, silty, interbedded with layers of silty red clay	88 - 126	38
Shale, red, gravel	126	
<u>Well 4</u>		
Silt, Black; red silty clay; stones	2 - 2	2
Clay, red sandy, wood fragments, rocks, wet	2 - 4	2
Clay, brown, pasty	4 - 4.5	0.5
Meadow mat, brown peat	4.5- 5	0.5
Clay, blue to gray, silty	5 - 6	1
Clay, blue to gray and olive; interbedded with lenses of fine to medium gray sand	6 - 8	2
Clay, brown, pasty	8 - 10	2
Clay, gray, pasty	10 - 13.5	3.5
Sand, gray, medium to fine, trace of silt	13.5- 16	2.5

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Table A-1. (Continued)

<u>Lithologic Description</u>	<u>Depth (feet)</u>	<u>Thickness (feet)</u>
<u>Well 5</u>		
Sand, fine to silt, black, brick and rock fragments	0 - 2	2
Clay, red, pasty	2 - 3	1
Sand, dark gray, medium to fine, trace of clay, wet	3 - 4	1
Meadow mat, brown peat	4 - 6	2
Clay, gray, pasty	6 - 6.5	0.5
Sand, gray and brown, fine trace of silt and clay	6.5 - 7	0.5
Clay, blue to green, pasty	7 - 7.5	0.5
Sand, reddish-brown to tan, fine, trace of silt and clay	7.5 - 8	0.5
Clay, brown to gray, pasty; interbedded with fine brown to gray sand	8 - 16	8
<u>Well 6</u>		
Sand, reddish-brown, coarse to fine, silty	0 - 4	4
Silt, black, wet	4 - 5	1
Meadow mat, brown peat	5 - 7	2
Clay, gray, some fine gray sand	7 - 8	1
Clay, gray and brown; lenses of medium to fine brown sand	8 - 10.5	2.5
Sand, fine to medium, trace of silt	10.5 - 13.5	3
Clay, reddish-brown, interbedded with thin layers of silt to fine sand	13.5 - 14	0.5
Clay, gray, silty, interbedded with layers of medium to fine gray sand	14 - 16	2
<u>Wells 7S, 7I, 7D</u>		
Silt, black, stones	0 - 4	4
Silt, black	4 - 6	2
Sand, gray, fine to medium, some clay	6 - 7.5	1.5
Clay, gray, trace of silt	7.5 - 9	1.5
Sand, gray to olive, fine to medium, little silt	9 - 10	1
Clay, gray, pasty, trace of silt	10 - 23	13
Clay, gray; interbedded with thin seams of silt	23 - 48	25
Clay, gray and reddish-brown, fine sand; lenses of gray clay	48 - 53	5
Silt, reddish-brown fine sand; lenses of gray clay	53 - 55	2
Sand, reddish-brown, fine, some silt, trace of clay; lenses of reddish-brown clay	55 - 63	8
Clay, reddish-brown, pasty	63 - 68	5
Clay, reddish-brown, pasty, interbedded with thin seams of red silt	68 - 78	10

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Table A-1. (Continued)

<u>Lithologic Description</u>	<u>Depth (feet)</u>	<u>Thickness (feet)</u>
<u>Wells 7S, 7I, 7D (Continued)</u>		
Silt; reddish-brown fine sand; reddish-brown clay seams	78 - 80	2
Sand, reddish-brown, very fine, silty, trace of clay	80 - 85	5
Clay, reddish-brown; interbedded with thin lenses of red silt	85 - 90	5
Sand, reddish-brown; very fine, silty	90 - 93	3
Clay, reddish-brown; interbedded with thin layers of red silt	93 - 99	6
Clay, reddish-brown; coarse reddish-brown sand and fine gravel	99 - 100	1
Clay, reddish-brown and gray; interbedded with thin layers of red silt	100 - 110	10
Silt, reddish-brown, some fine sand, trace of clay	110 - 125	15
Weathered shale, reddish-brown fine sand and silt, hard	125 - 132	7
Shale, red	132	
<u>Well 8</u>		
Bricks and concrete	0 - 4	4
Clay, gray; silt; stones	4 - 6	2
Meadow mat, brown peat	6 - 8	2
Sand, gray, fine to medium; silt	8 - 9	1
Clay, gray, pasty	9 - 10	1
Clay, reddish-brown, silty; lenses of fine brown sand	10 - 16	6
<u>Well 9, B-7</u>		
Silt, black, brown peat	0 - 2	2
Fill, black silt, glass	2 - 6	4
Clay, gray, pasty	6 - 7.5	1.5
Clay, gray to olive, silty; lenses of fine gray sand	7.5 - 10	2.5
Clay, reddish-brown, silty; interbedded with layers of fine brown sand	10.5 - 14	4
Clay, gray, silty, interbedded with layers of brown fine sand	14 - 16	2
<u>Well 10</u>		
Rocks, stones	0 - 2	2
Clay, gray, silty	2 - 2.5	0.5
Meadow mat, brown peat	2.5 - 3.5	1
Sand, reddish-brown, fine to medium, trace of silt	3.5 - 4	0.5
Meadow mat, brown peat	4 - 6	2

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Table A-1. (Continued)

<u>Lithologic Description</u>	<u>Depth (feet)</u>	<u>Thickness (feet)</u>
<u>Well 10 (Continued)</u>		
Clay, blue to gray, silty; trace of fine sand	6 - 9	3
Sand, olive and gray, medium to fine; trace of silt and clay	9 - 11.5	2.5
Clay, gray, silty, some fine sand; interbedded with layers of gray medium to fine silty sand	11.5- 16	4.5
<u>Well 11</u>		
Sand, black, medium to fine, silty	0 - 1.5	1.5
Sand, reddish-brown, trace of clay, stones	1.5- 2	0.5
Sand, gray, fine to medium, trace of silt	2 - 5	3
Clay, blue to gray, pasty	5 - 6	1
Meadow mat, brown peat	6 - 7	1
Clay, blue to gray, silty	7 - 7.5	0.5
Sand, gray, fine to medium, trace of silt, little clay	7.5- 8	0.5
Sand, dark gray, trace of silt	8 - 10	2
Clay, reddish-brown, silty	10 - 14	4
Clay, gray, some silt; interbedded with layers of medium to fine gray sand	14 - 16	2
<u>Well 12I</u>		
Sand, red to dark brown, medium to fine; some gravel	0 - 4	4
Meadow mat, black; trace of silty sand	4 - 5	1
Sand, brown, fine, silty	5 - 6	1
Sand, gray, fine, silty with trace of clay	6 - 8	2
Sand, brownish-gray, medium, trace of silt	8 - 12	4
Sand, gray, medium, trace of silt; layers of gray silty clay	12 - 17	5
<u>Well 13I</u>		
Sand, reddish-brown, medium, little gravel; thin black ash layer at 1 foot	0 - 4	4
Meadow mat, dark brown, some cedar roots	4 - 6	2
Sand, gray, fine, silty	6 - 8	2
Clay, gray, silty, slightly mottled	8 - 10	2
Sand, gray, fine to medium; thin layers of gray silty sand	10 - 16	6
Clay, gray; with thin partings of fine gray sand	16 - 17	1

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Table A-1. (Continued)

<u>Lithologic Description</u>	<u>Depth (feet)</u>	<u>Thickness (feet)</u>
<u>Well 14I</u>		
Sand, brownish-red, fine to medium, some gravel	0 - 4.5	4.5
Concrete	4.5- 5.5	1
Sand, brown, fine, little gravel	5.5- 7	1.5
Silt, brown, sandy, some black organic matter	7 - 8	1
Clay, gray, silty	8 - 13	5
Sand, gray, medium	13 - 17	4
<u>Well 15I</u>		
Sand, brown and black, medium, some gravel	0 - 2	2
Cinders, black, with some sand and little gravel	2 - 3	1
Meadow mat, brown, and roots	3 - 5	2
Sand, reddish-brown to gray, fine	5 - 6	1
Clay, gray, silty	6 - 10	4
Sand, gray to brown, fine, silty	10 - 10.5	0.5
Clay, gray to brown, silty	10.5- 14	3.5
Sand, gray, fine, silty	14 - 16	2
Clay, gray, silty	16 - 17	1
<u>Well 16I</u>		
Sand, reddish-brown, medium, some gravel	0 - 3	3
Cinders, black	3 - 4	1
Meadow mat, black, some cedar roots	4 - 6	2
Sand, gray, fine, silty with trace of clay	6 - 8	2
Sand, gray, fine to medium	8 - 16	8
Sand, gray, silty with trace of clay	16 - 17	1
<u>Well 17I</u>		
Sand, brown, medium to fine, some brick, brownish-red, little gravel	0 - 3	3
Cinders, black	3 - 4.5	1.5
Meadow mat, brown to black	4.5- 6.5	2
Sand, gray, fine, silty, trace of clay	6.5- 10	3.5
Clay, brown and gray, trace of sand, mottled in upper 2 feet	10 - 16	6
Clay, gray with gray silty fine sand partings	16 - 17	1

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Table A-1. (Continued)

<u>Lithologic Description</u>	<u>Depth (feet)</u>	<u>Thickness (feet)</u>
Well 18I		
Gravel, reddish-brown, and reddish-brown medium sand, little brick	0 - 4	4
Meadow mat, dark brown	4 - 6	2
Clay, gray, silty, trace of sand	6 - 6.5	0.5
Sand, gray, fine, silty	6.5- 7.5	1
Clay, gray and orange, silty, trace of sand, mottled	7.5- 15	7.5
Clay, gray, slightly mottled, with partings of fine sand	15 - 17	2
Well 19I		
Shale, reddish-brown, and brown medium sand	0 - 4	4
Meadow mat, dark brown	4 - 6	2
Sand, gray, fine to medium, silty, trace of clay	6 - 10.5	4.5
Clay, gray, silty, with partings of fine sand	10.5- 11.2	0.7
Sand, gray, fine to medium, silty	11.2- 12	0.8
Clay, gray, silty, with partings of fine sand	12 - 17	5
Well 20I		
Sand, brownish-red, fine, little gravel, trace of glass, plastic	0 - 3	3
Meadow mat, dark brown, some peat	3 - 7	4
Clay, gray, silty	7 - 8	1
Sand, gray, fine, silty	8 - 10	2
Clay, gray, silty, slightly mottled	10 - 11	1
Sand, gray, fine	11 - 11.5	0.5
Clay, brownish-red, silty, with partings of fine sand; some thin layers of sand towards base	11.5- 17	5.5
Well 21I		
Gravel, brown, and sand, reddish-brown, medium, some brick	0 - 5	5
Meadow mat, grades from black at top to brown at base	5 - 7	2
Clay, gray, silty, with layers of gray silty fine sand	7 - 14	7
Clay, brownish-red, silty, with partings of fine sand	14 - 17	3
Well 22I		
Sand, brownish-red, medium, some red gravel, trace of glass	0 - 6	6
Clay, gray, silty	6 - 7	1
Clay, black, silty	7 - 10	3
Sand, gray, fine, with thin layers of silty clay	10 - 12	2

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Table A-1. (Continued)

<u>Lithologic Description</u>	<u>Depth (feet)</u>	<u>Thickness (feet)</u>
<u>Well 22I (Cont'd.)</u>		
Clay, gray, silty, trace of sand, with partings of sand	12 - 17	5
<u>Well 23I</u>		
Cinders, black, some brownish-red medium sand	0 - 2	2
Sand, bluish-black, medium, some gravel	2 - 5.5	3.5
Sand, bluish-gray, fine, silty, trace of clay; some layers of bluish-gray silty clay	5.5- 13	7.5
Clay, reddish-brown, silty, with partings of gray fine sand	13 - 17	4
<u>Well 24I</u>		
Sand, brown and white, medium, little gravel	0 - 5	5
Meadow mat, dark brown	5 - 7	2
Clay, gray and brown, silty, with partings of fine sand	7 - 14	7
Clay, reddish-brown, silty, with partings of fine sand	14 - 17	3
<u>Well 25I</u>		
Brick, red, some dark brown fine sand	0 - 5	5
Meadow mat, dark brown	5 - 7	2
Clay, brownish-gray, silty, with partings of fine sand	7 - 13	6
Clay, reddish-brown, silty, with partings of fine sand	13 - 17	4
<u>Well 26I</u>		
Sand, brownish-red, fine, little gravel	0 - 4	4
Cinders, white, little metal	4 - 5	1
Meadow mat, black	5 - 7	2
Clay, brown and gray, silty, with partings of fine sand	7 - 17	10
<u>B-1</u>		
Silt, black and brown, trace of clay; red brick fragments and fill material	0 - 6	6
Sand, gray, medium to fine, some silt, trace of clay	6 - 10	4

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Table A-1. (Continued)

<u>Lithologic Description</u>	<u>Depth (feet)</u>	<u>Thickness (feet)</u>
<u>B-2</u>		
Silt, black	0 - 2	2
Meadow mat, brown peat	2 - 4	2
Clay, gray, pasty; trace of fine sand and silt	4 - 6.5	2.5
Sand, gray, medium to fine, trace of silt, interbedded with gray pasty clay	6.5- 9	2.5
Clay, reddish-brown, silty, interbedded with layers of fine sand	9 - 10	1
<u>B-3</u>		
Waste material, pasty, black, white and green	0 - 2	2
Meadow mat, brown peat	2 - 4	2
Clay, gray, silty, interbedded with gray fine to medium silty sand	4 - 7.5	3.5
Sand, gray, fine to medium, trace of silt and clay	7.5- 10	2.5
<u>B-4</u>		
Silt, black	0 - 2	2
Clay, reddish-brown, silty, red shale fragments	2 - 5	3
Meadow mat, brown peat	5 - 6	1
Clay, gray, trace of fine sand and silt	6 - 10	4
<u>B-5</u>		
Silt, rocks, stones	0 - 2	2
Clay, reddish-brown, trace of fine sand; sandstone and red shale fragments	2 - 4.5	2.5
Meadow mat, brown peat	4.5- 6.5	2
Clay, gray, fine gray sand; interbedded with gray and olive fine to medium sand	6.5- 10	3.5
<u>B-6</u>		
Silt, rocks	0 - 2	2
Sand, brown, medium to fine, trace of silt	2 - 3.5	1.5
Silt, black, clayey	3.5- 6	2.5
Meadow mat, brown peat	6 - 8	2
Clay, dark gray, silty; lenses of fine sand	8 - 9	1
Sand, gray, medium to fine, trace of silt	9 - 9.5	0.5
Clay, gray, pasty	9.5- 10	0.5

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Table A-2. Summary of Construction Details for Monitoring Wells 12I Through 26I at the UOP, Inc. Plant Site, East Rutherford, New Jersey.

Well No.	New Jersey DEP Permit No.	Screened Interval (feet below land surface)	Construction Materials		Diameter (inches)	Date Completed
			Screen	Casing		
12I	26-7077	2.5 - 17.5	SS	ST	2	10-15-84
13I	26-7078	0.5 - 15.5	SS	ST	2	10-15-84
14I	26-7079	2.5 - 17.5	SS	ST	2	10-15-84
15I	26-7080	1.1 - 16.1	SS	ST	2	10-15-84
16I	26-7081	3.0 - 18.0	SS	ST	2	10-16-84
17I	26-7082	0.8 - 15.8	SS	ST	2	10-16-84
18I	26-7083	3.5 - 18.5	SS	ST	2	10-16-84
19I	26-7084	2.5 - 17.5	SS	ST	2	10-17-84
20I	26-7085	3.4 - 18.4	SS	ST	2	10-17-84
21I	26-7086	2.5 - 17.5	SS	ST	2	10-17-84
22I	26-7087	1.0 - 16.0	SS	ST	2	10-17-84
23I	26-7088	0.7 - 15.7	SS	ST	2	10-18-84
24I	26-7089	1.0 - 16.0	SS	ST	2	10-18-84
25I	26-7090	2.5 - 17.5	SS	ST	2	10-19-84
26I	26-7091	1.5 - 16.5	SS	ST	2	10-19-84

Note: SS - Stainless steel
 ST - Black steel

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APPENDIX B

CHEMICAL DATA

Ground-Water and Surface-Water Quality Sampling Procedure

Table B-1. Summary of Ground-Water Quality Data

Table B-2. Summary of Surface-Water Quality Data

Soil and Sediment Quality Data

Table B-3. Summary of Soil Quality Data

Table B-4. Summary of Sediment Quality Data

Chain-of-Custody Documentation

GROUND-WATER QUALITY SAMPLING PROCEDURE

The following protocol was used to sample the monitoring wells at the UOP Inc. Plant site in East Rutherford, New Jersey, and is based on accepted procedures that have been adopted by Geraghty & Miller, Inc. for use in hydrogeologic investigations.

1.0 Well Evacuation Procedures

- 1.1 Identify the well and record its designation.
- 1.2 Clean the top of the well with a clean rag.
- 1.3 Remove the well cap or plug, wipe the inside of the casing with a clean rag and place the cap down so as to keep it clean.
- 1.4 Clean the first 5 feet of the steel tape with distilled water and then measure the depth to water.
- 1.5 Compute the volume of water in 2-inch diameter well (0.162 gallons/feet) or 4-inch diameter well (0.652 gallons/feet).
- 1.6 Remove five times the volume of standing water in the well using a centrifugal pump or a submersible pump depending upon the static and pumping water levels.
 - 1.6.1 The intake opening of the pump line or pump impellers should be positioned and maintained just below the water surface in the well casing to ensure that the well is properly flushed. If there is a decrease in the well's water levels as a result of pumping, the intake line should be lowered as needed. This procedure does not have to be followed for any wells which exhibit a low

specific capacity indicated by rapid and pronounced drops in the water level, even to the point where the well is pumped dry.

- 1.6.2 If the well has been pumped or developed recently, the water level (that is, the volume of water in the casing) may not yet have recovered or returned to its normal state. This does not require a change in the evacuation procedures outlined above. Although the actual volume of water in the casing under such conditions is less than normally encountered, the removal of five times this volume is normally sufficient to provide samples for analysis that are representative of the water in the surrounding formation.
- 1.6.3 Although no single flushing protocol can cover all conditions, work performed by several researchers indicates that four to ten volumes should be removed before sampling (Manual of Ground Water Sampling Procedures, NWWA/EPA Series, 1981).
- 1.6.4 If the well is pumped dry during this procedure and shows essentially complete recovery within 15 minutes, the removal of water should continue after each of the four additional recovery periods. If recovery is less than 75 percent during the 15 minutes after complete evacuation, sampling can begin with the next appearance of water. However, the initial volume which eventually becomes available may not be sufficient to complete the sampling in the brief period of time normally required.

2.0 Well Sampling Procedure

- 2.1 A peristaltic pump equipped with silicone tubing around the pinch rollers and polypropylene tubing for the intake and discharge lines and/or a teflon bailer should be used to collect all monitoring well samples.
 - 2.1.1 Sample the well directly from the discharge line of the peristaltic pump immediately after the five volumes of water have been removed or collect the samples using the teflon bailer once the well has been properly purged.
 - 2.1.2 If a peristaltic pump(s) is used, all tubing should be removed from the pump and discarded after each well has been sampled. This will minimize the possibilities of cross contamination between successive samples. The polypropylene and silicone tubing avoids contamination of samples with plasticizers, which can leach out of other materials such as Tygon tubing. Similarly, where a bailer is used, it must be thoroughly washed with micro detergent solution and repeatedly rinsed with distilled water before each use.
- 2.2 In the event that the depth(s) to water preclude the use of a peristaltic pump, a submersible pump should be used to purge the well and samples should be collected using either a stainless steel or teflon bailer.
 - 2.2.1 The submersible pump and all associated tubing and support lines should be thoroughly cleaned prior to placing it in each well. This can best be accomplished by making up a

detergent solution in a new (clean) 55-gallon drum, submerging the pump and all lines in the drum and pumping the detergent solution out of the drum through the pump and discharge line. This should be followed by a similar "bath and flush" using water of potable quality.

2.3 Split samples should be collected in a common container that is large enough to fill the required number of sample containers. If a common container is not available and/or practical, the sample may be spilt directly from a bailer with each sample container receiving equal amounts to ensure sample uniformity.

2.3.1 If a well will not yield the volume of water necessary to immediately fill all of the split sample containers, each container should receive an equal amount from each full bailer. During the sampling of such wells, it is important that partially filled sample bottles be tightly capped, kept out of sunlight and cooled to 4°C, as the delays in obtaining adequate sample volume could otherwise jeopardize the representativeness of the samples.

2.4 Once samples have been collected they should be prepared and preserved in accordance with recommended procedures supplied by the analyzing laboratory.

2.4.1 It is important to note that all water samples designated for heavy metals analyses should be filtered through a 0.45 micron membrane filter prior to acidification. The

membrane may clog readily, so prefiltration through paper and/or fiberglass will expedite the filtration process for samples with more than slight turbidity. (Acidification can displace metal ions adsorbed on particles in the sample that are not initially removed. The unfiltered sample, therefore, usually shows much higher metal concentrations; the higher value corresponds to "dissolved plus displacable" metal ion concentration.) This is done to ensure that only metal ions initially in solution will be measured.

WELL EVACUATION AND SAMPLING EQUIPMENT

Field Book, pens, marking pens, labels.

Clean rags, disposable gloves (optional).

Steel tape, preferably graded in hundredths of a foot.

Chalk for tape.

Distilled water, plastic wash bottle.

Liquid detergent or micro solution

Peristaltic pumps and battery or generator.

Silicone tubing.

Polypropylene tubing.

Tools required for opening wells.

Filter paper.

Conical or Buchner funnels.

Vacuum pumps (may use peristaltic pump).

Side-arm flask.

Membrane filtration apparatus (Gelman magnetic).

47-mm, 0.45 um, pore-size membranes.

Fiberglass prefilters, 47 mm.

Pail (preferably graduated).

Ice chest and ice.

pH meter, electrode(s), standard buffer solutions, beakers, conductivity bridge, conductivity cell.

Submersible pump (new 55-gallon drum)

Generator

Bailers, teflon or stainless steel

SURFACE-WATER SAMPLING PROCEDURESMaterials

Conductivity Meter	1 Gallon Narrow-Neck Sample Collection
pH Meter	Container (Glass)
Dissolved Oxygen Meter	Sample Bottles
Thermometer	Detergent/Potable Water/Distilled or
Cooler/Ice	Deionized Water
Portable Filtration Unit	Rubber Gloves/Waders
0.45 Micron Filters	

Procedures:

1. Record sampling station number.
2. Locate the point in the channel of highest water velocity and record this location (i.e., place a tape across the channel and measure the distance from the left bank looking upstream).
3. Measure the depth and surface velocity of water at this location.
4. Rinse the glass collection container three times with stream water.
5. Lower the collection container from the surface to the bottom of the stream at the location of greatest velocity so that filling occurs at all depths. The bottle movement should be done at a constant speed, wherever possible, to collect a uniformly composited (vertically) sample.
6. Transfer the sample to the pre-labeled sample bottles and then immediately store the samples at approximately 4° in a cooler. Samples for metal analyses must be filtered in the field prior to being placed in the acidified sample containers.
7. Measure and record the temperature, pH, specific conductance, and dissolved oxygen.
8. Clean the collection container thoroughly with detergent, potable water, and distilled deionized water.

SEDIMENT SAMPLING PROCEDUREMaterials

Bottles as provided by the analyzing laboratory	24-inch long "A" rod (2)
Liquid detergent or micro solution	Gloves, rubber
Lab brush	Waders
Screwdrivers (2)	Pipe wrenches (14 inches long, two required)
Sledge hammer	Tap water and distilled water
Steel tape	Tongue depressors, wooden
30-inch long split-spoon core barrel with retainer clip or a Wildco stainless steel sediment sampler	

Procedure: Start sampling at furthest downstream station and work upstream. Sampling may require construction of a temporary platform across the creek channel at some or all locations.

1. Identify the sampling station location and record it.
2. Stretch the measuring tape across the stream anchoring it on either side. Record the stream width.
3. Where possible, an attempt should be made to collect three sets of samples at each location. These should be taken 6 inches from each bank and in the middle of the channel.
4. Collect the sample downstream of the steel tape by driving the core barrel 1.5 feet into the stream bottom. Record the depth of the water for each sample.
5. Recover the core barrel and remove the sample by sliding the contents into the appropriate sample containers using a clean wooden tongue depressor.
6. Identify the sample container(s) in terms of the designation and the distance from left bank (looking upstream) where the sample was taken.
7. Place the sample on ice and out of direct sunlight.
8. Brush out the core tube with detergent and rinse it in tap water followed by distilled water.
9. Reassemble core tool and take the next sample.
10. At the conclusion of sample collection, describe the sediments found at the station.

TABLE B-1. SUMMARY OF GROUNDWATER QUALITY DATA FOR UOP INC.'S PLANT SITE
IN EAST RUTHERFORD, NEW JERSEY

CHEMICAL CONCENTRATIONS (Reported in ug/L, except where noted)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL 18 =====	WELL 16 =====	WELL 26 =====	WELL 28 =====	WELL 21 =====	WELL 21 =====
acrolein	11/83	<100	<100	<100	<100	<100	<200
acrylonitrile		<100	<100	<100	<100	<100	<200
benzene		<5	7.0	<5	<5	<5	<10
carbon tetrachloride		<5	<5	<5	<5	<5	<10
chlorobenzene		<5	<5	<5	<5	<5	<10
1,2-dichloroethane		<5	<5	<5	<5	<5	<10
1,1,1-trichloroethane		<5	<5	<5	<5	<5	<10
1,1-dichloroethane		<5	<5	<5	<5	<5	<10
1,1,2-trichloroethane		<5	<5	<5	<5	<5	<10
1,1,2,2-tetrachloroethane		<10	<10	<10	<10	<10	<10
chloroethane		<10	<10	<10	<10	<10	<10
2-chloroethyl vinyl ether		<10	<10	<10	<10	<10	<10
chloroform		<5	<5	<5	<5	<5	<10
1,1-dichloroethylene		<5	<5	<5	<5	<5	<10
1,2-trans-dichloroethylene		<5	3.4	<5	<5	<5	<10
1,2-dichloropropane		<10	<10	<10	<10	<10	<10
1,3-dichloropropylene		<5	<5	<5	<5	<5	<10
ethylbenzene		<5	<5	<5	<5	<5	<10
methylene chloride		<5	<5	<5	<5	<5	<10
methyl chloride		<10	<10	<10	<10	<10	<10
methyl bromide		<10	<10	<10	<10	<10	<10
bromoform		<10	<10	<10	<10	<10	<10
dichlorobromomethane		<5	<5	<5	<5	<5	<10
trichlorofluoromethane		<10	<10	<10	<10	<10	<10
dichlorodifluoromethane		<10	<10	<10	<10	<10	<10
chlorodibromomethane		<5	<5	<5	<5	<5	<10
tetrachloroethylene		<5	<5	<5	<5	<5	<10
toluene		<5	<5	<5	<5	<5	240
trichloroethylene		<5	<5	<5	<5	<5	<10
vinyl chloride		<10	<10	<10	<10	<10	<10
acetone		<5	<5	130	34	<5	<10
2-butanone		<5	<5	<5	<5	<5	<10
carbon disulfide		<5	<5	<5	<5	<5	<10
2-hexanone		<5	<5	<5	<5	<5	<10
4-methyl-2-pentanone		<5	<5	<5	<5	<5	<10
stryrene		<5	<5	<5	<5	<5	<10
vinyl acetate		<5	<5	<5	<5	<5	<10
total xylenes		<5	<5	<5	<5	320	93

TABLE B-1. (CONTINUED/PAGE 2)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL 3S	WELL 3B	WELL 3I	WELL 3I	WELL 3D	WELL 3D
		1/83	1/85	11/83	1/85	** 11/83	** 1/85
acrolein		<100	<100	<100	<100	<100	<100
acrylonitrile		<100	<100	<100	<100	<100	<100
benzene		<5	<5	340	160	130	<5
carbon tetrachloride		<5	<5	<5	<5	<5	<5
chlorobenzene		<5	<5	29	17	16	<5
1,2-dichloroethane		<5	<5	<5	<5	<5	<5
1,1,1-trichloroethane		<5	<5	<5	<5	<5	<5
1,1-dichloroethane		<5	<5	<5	12	10	<5
1,1,2-trichloroethane		<5	<5	<5	<5	<5	<5
1,1,2,2-tetrachloroethane		<10	<10	<10	<10	<10	<10
chloroethane		<10	<10	<10	<10	<10	<10
2-chloroethyl vinyl ether		<10	<10	<10	<10	<10	<10
chloroform		<5	<5	<5	<5	<5	<5
1,1-dichloroethylene		<5	<5	<5	<5	<5	1.4
1,2-trans-dichloroethylene		<5	<5	<5	<5	53	48
1,2-dichloropropane		<10	<10	<10	<10	<10	<10
1,3-dichloropropylene		<5	<5	<5	<5	<5	<5
ethylbenzene		<5	<5	12	2.3	3.2	<5
methylene chloride		<5	<5	<5	12	<5	<5
methyl chloride		<10	<10	<10	<10	<10	<10
methyl bromide		<10	<10	<10	<10	<10	<10
bromoform		<10	<10	<10	<10	<10	<10
dichlorobromomethane		<5	<5	<5	<5	<5	<5
trichlorofluoromethane		<10	<10	<10	<10	<10	<10
dichlorodifluoromethane		<10	<10	<10	<10	<10	<10
chlorodibromomethane		<5	<5	<5	<5	<5	<5
tetrachloroethylene		<5	<5	<5	<5	<5	3.6
toluene		<5	<5	4.5	3.0	2.7	<5
trichloroethylene		<5	<5	<5	<5	15	14
vinyl chloride		<10	<10	<10	<10	<10	<10
acetone		<5	38	<5	<5	<5	<5
2-butanone		<5	<5	<5	<5	<5	<5
carbon disulfide		<5	<5	<5	<5	<5	<5
2-hexanone		<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone		<5	<5	<5	<5	<5	<5
stryrene		<5	<5	<5	<5	<5	<5
vinyl acetate		<5	<5	29	6.7	5.7	<5
total xylenes		<5					<5

TABLE B-1. (CONTINUED/PAGE 3)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL 4I	WELL 4I	WELL 5I	WELL 5I	WELL 6I	WELL 6I
acrolein		<100	<100	<100	<100	<100	<2000 <2000
acrylonitrile		<100	<100	<100	<100	<100	<2000 <2000
benzene		53	76	<5	<5	18000	31000 42000
carbon tetrachloride		<5	<5	<5	<5	<5	<100 <100
chlorobenzene		130	140	<5	<5	10	<100 <100
1,2-dichloroethane		<5	<5	<5	<5	<5	<100 <100
1,1,1-trichloroethane		<5	<5	<5	<5	<5	<100 <100
1,1-dichloroethane		<5	<5	<5	<5	<5	<100 <100
1,1,2-trichloroethane		<5	<5	<5	<5	<5	<100 <100
1,1,2,2-tetrachloroethane		<10	<10	<10	<10	3800	<200 <200
chloroethane		<10	<10	<10	<10	<10	<200 <200
2-chloroethyl vinyl ether		<10	<10	<10	<10	<10	<200 <200
chloroform		<5	<5	<5	<5	<5	<100 <100
1,1-dichloroethylene		<5	<5	<5	<5	<5	<100 <100
1,2-trans-dichloroethylene		1.2	<5	<5	<5	820	100 140
1,2-dichloropropane		<10	<10	<10	<10	<10	<200 <200
1,3-dichloropropylene		<5	<5	<5	<5	<5	<100 <100
ethylbenzene		13	8.8	<5	<5	11	<100 <100
methylene chloride		<5	<5	<5	<5	<5	<100 <100
methyl chloride		<10	<10	<10	<10	<10	<200 <200
methyl bromide		<10	<10	<10	<10	<10	<200 <200
bromoform		<10	<10	<10	<10	<10	<200 <200
dichlorobromomethane		<5	<5	<5	<5	<5	<100 <100
trichlorofluoromethane		<10	<10	<10	<10	<10	<200 <200
dichlorodifluoromethane		<10	<10	<10	<10	<10	<200 <200
chlorodibromomethane		<5	<5	<5	<5	<5	<100 <100
tetrachloroethylene		<5	<5	<5	<5	<5	<100 <100
toluene		2.3	<5	<5	<5	11	<100 <100
trichloroethylene		<5	<5	<5	<5	1000	<100 <100
vinyl chloride		14	4.3	<10	<10	<10	<200 <200
acetone		<5	<5	<5	<5	<5	<100 <100
2-butanone		<5	<5	<5	<5	<5	<100 <100
carbon disulfide		<5	<5	<5	<5	<5	<100 <100
2-hexanone		<5	<5	<5	<5	<5	<100 <100
4-methyl-2-pentanone		<5	<5	<5	<5	<5	<100 <100
stryrene		<5	<5	<5	<5	<5	<100 <100
vinyl acetate		<5	<5	<5	<5	<5	<100 <100
total xylenes		3.1	<5	<5	<5	26	<100 <100

TABLE B-1. (CONTINUED/PAGE 4)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL 7S =====	WELL 7S =====	WELL 7I =====	WELL 7I =====	WELL 7D =====	WELL 7D =====
acrolein	11/83	<100	<100	<100	<200	<100	<100
acrylonitrile		<100	<100	<100	<200	<100	<100
benzene		160	<5	640	780	<5	<5
carbon tetrachloride		<5	<5	<5	<10	<5	<5
chlorobenzene		<5	<5	110	55	<5	<5
1,2-dichloroethane		<5	<5	<5	<10	<5	<5
1,1,1-trichloroethane		<5	<5	<5	<10	<5	<5
1,1-dichloroethane		<5	<5	<5	<10	<5	<5
1,1,2-trichloroethane		<5	<5	<5	<10	<5	<5
1,1,2,2-tetrachloroethane		<10	<10	42	<20	<10	<10
chloroethane		<10	<10	<10	<20	<10	<10
2-chloroethyl vinyl ether		<10	<10	<10	<20	<10	<10
chloroform		<5	<5	<5	<10	<5	<5
1,1-dichloroethylene		<5	<5	<5	<10	<5	<5
1,2-trans-dichloroethylene		<5	<5	<5	<10	<5	<5
1,2-dichloropropane		<10	<10	<10	<20	<10	<10
1,3-dichloropropylene		<5	<5	<5	<10	<5	<5
ethylbenzene		<5	<5	15	<10	<5	<5
methylene chloride		<5	<5	<5	<10	<5	<5
methyl chloride		<10	<10	<10	<20	<10	<10
methyl bromide		<10	<10	<10	<20	<10	<10
bromoform		<10	<10	<10	<20	<10	<10
dichlorobromomethane		<5	<5	<5	<10	<5	<5
trichlorofluoromethane		<10	<10	<10	<20	<10	<10
dichlorodifluoromethane		<10	<10	<10	<20	<10	<10
chlorodibromomethane		<5	<5	<5	<10	<5	<5
tetrachloroethylene		<5	<5	<5	<10	<5	<5
toluene		26	<5	90	30	3.8	<5
trichloroethylene		<5	<5	<5	<10	<5	<5
vinyl chloride		<10	<10	<10	<20	<10	<10
acetone		84	69	<5	<10	<5	<5
2-butanone		<5	<5	<5	<10	<5	<5
carbon disulfide		<5	<5	<5	<10	<5	<5
2-hexanone		<5	<5	<5	<10	<5	<5
4-methyl-2-pentanone		<5	<5	<5	<10	<5	<5
stryrene		<5	<5	<5	<10	<5	<5
vinyl acetate		<5	<5	<5	<10	<5	<5
total xylenes		<5	<5	70	50	<5	<5

TABLE B-1. (CONTINUED/PAGE 5)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL 8I			WELL 8I			WELL 9I			WELL 9I			WELL 10I		
		11/83	**	1/85	11/83	**	1/85	11/83	**	1/85	11/83	**	1/85	11/83	**	1/85
acrolein		<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
acrylonitrile		<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
benzene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	46	<5	<5	<5	<5
carbon tetrachloride		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10	<5	<5	<5	<5
chlorobenzene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10	<5	<5	<5	<5
1,2-dichloroethane		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1-trichloroethane		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-dichloroethane		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-trichloroethane		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2,2-tetrachloroethane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
chloroethane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-chloroethyl vinyl ether		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
chloroform		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-dichloroethylene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-trans-dichloroethylene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	41	<5	<5	<5	<5
1,2-dichloropropane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3-dichloropropylene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
ethylbenzene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	54	<5	<5	<5	<5
methylene chloride		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
methyl chloride		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
methyl bromide		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
bromoform		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
dichlorobromomethane		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
trichlorofluoromethane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
dichlorodifluoromethane		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
chlorodibromomethane		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
tetrachloroethylene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
toluene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	21	<5	<5	<5	<5
trichloroethylene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	1.1	<5	<5	<5	<5
vinyl chloride		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	340	<10	<10	<10	<10
acetone		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-butanone		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
carbon disulfide		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
stryrene		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
vinyl acetate		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	76	<5	<5	<5	<5
total xylenes		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	76	<5	<5	<5	<5

TABLE B-1. (CONTINUED/PAGE 6)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL 11I	WELL 11I	WELL 12I	WELL 13I	WELL 14I	WELL 15I
acrolein	11/83	<100	<100	<500	<25000	<200	<100
acrylonitrile		<100	<100	<500	<25000	<200	<100
benzene		600	390	770	44000	320	<5
carbon tetrachloride		<5	<5	<25	<1250	<10	<5
chlorobenzene		65	37	910	<1250	330	<5
1,2-dichloroethane		<5	<5	<25	<1250	<10	<5
1,1,1-trichloroethane		<5	<5	<25	<1250	<10	<5
1,1-dichloroethane		<5	<5	<25	<1250	<10	<5
1,1,2-trichloroethane		<5	<5	<25	<1250	<10	<5
1,1,2,2-tetrachloroethane		<10	<10	<50	<2500	<20	<10
chloroethane		<10	<10	<50	<2500	<20	<10
2-chloroethyl vinyl ether		<10	<10	<50	<2500	<20	<10
chloroform		<5	<5	<25	<1250	<10	<5
1,1-dichloroethylene		<5	<5	<25	<1250	<10	<5
1,2-trans-dichloroethylene		<5	<5	<25	<1250	<10	<5
1,2-dichloropropane		<10	<10	<50	<2500	<20	<10
1,3-dichloropropylene		<5	<5	<25	<1250	<10	<5
ethylbenzene		<5	3.9	<25	<1250	87	<5
methylene chloride		<5	<5	<25	<1250	<10	<5
methyl chloride		<10	<10	<50	<2500	<20	<10
methyl bromide		<10	<10	<50	<2500	<20	<10
bromoform		<10	<10	<50	<2500	<20	<10
dichlorobromomethane		<5	<5	<25	<1250	<10	<5
trichlorofluoromethane		<10	<10	<50	<2500	<20	<10
dichlorodifluoromethane		<10	<10	<50	<2500	<20	<10
chlorodibromomethane		<5	<5	<25	<1250	<10	<5
tetrachloroethylene		<5	<5	<25	<1250	<10	<5
toluene		180	27	190	160000	320	<5
trichloroethylene		<5	<5	<25	<1250	<10	<5
vinyl chloride		<10	<10	<50	<2500	<20	<10
acetone		<5	<5	<25	<1250	<10	<5
2-butanone		<5	<5	<25	<1250	<10	<5
carbon disulfide		<5	<5	<25	<1250	<10	<5
2-hexanone		<5	<5	<25	<1250	<10	<5
4-methyl-2-pentanone		<5	<5	<25	<1250	<10	<5
stryrene		<5	<5	<25	<1250	<10	<5
vinyl acetate		<5	<5	<25	<1250	<10	<5
total xylenes		<5	8.4	<25	<1250	530	<5

TABLE B-1. (CONTINUED/PAGE 7)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL 16I	WELL 17I	WELL 18I	WELL 19I	WELL 20I	WELL 21I
acrolein		<100	<2000	<100	<20000	<20000	<20000
acrylonitrile		<100	<2000	<100	<20000	<100	<20000
benzene		74	35000	<5	<100	51	6300
carbon tetrachloride		<5	<100	<5	<100	<5	<100
chlorobenzene		39	21000	<5	5700	7900	70
1,2-dichloroethane		<5	<100	<5	<100	<5	<100
1,1,1-trichloroethane		<5	<100	<5	<100	<5	<100
1,1-dichloroethane		<5	<100	<5	<100	<5	<100
1,1,2-trichloroethane		<5	<100	<5	<100	<5	<100
1,1,2,2-tetrachloroethane		<10	<200	<10	<200	<10	<200
chloroethane		<10	<200	<10	<200	<10	<200
2-chloroethyl vinyl ether		<10	<200	<10	<200	<10	<200
chloroform		<5	<100	<5	<100	<5	<100
1,1-dichloroethylene		<5	<100	<5	<100	<5	<100
1,2-trans-dichloroethylene		980	<100	<5	<100	<5	140
1,2-dichloropropane		<10	<200	<10	<200	<10	<200
1,3-dichloropropylene		<5	<100	<5	<100	<5	<100
ethylbenzene		<5	<100	<5	<100	<5	65
methylene chloride		<5	<100	<5	<100	<5	<100
methyl chloride		<10	<200	<10	<200	<10	<200
methyl bromide		<10	<200	<10	<200	<10	<200
bromoform		<10	<200	<10	<200	<10	<200
dichlorobromomethane		<5	<100	<5	<100	<5	<100
trichlorofluoromethane		<10	<200	<10	<200	<10	<200
dichlorodifluoromethane		<10	<200	<10	<200	<10	<200
chlorodibromomethane		<5	<100	<5	<100	<5	<100
tetrachloroethylene		<5	<100	<5	<100	<5	<100
toluene		1.9	110	<5	<100	77	870
trichloroethylene		<5	<100	<5	<100	<5	<100
vinyl chloride		1000	<200	<10	<200	<10	<200
acetone		<5	<100	<5	<100	<5	<100
2-butanone		<5	<100	<5	<100	<5	<100
carbon disulfide		<5	<100	<5	<100	<5	<100
2-hexanone		<5	<100	<5	<100	<5	<100
4-methyl-2-pentanone		<5	<100	<5	<100	<5	<100
stryrene		<5	<100	<5	<100	<5	<100
vinyl acetate		<5	<100	<5	<100	<5	<100
total xylenes		<5	<100	<5	<100	<5	230

TABLE B-1. (CONTINUED/PAGE 8)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL 22I	WELL 23I	WELL 24I	WELL 25I	WELL 26I	
		1/85	1/85	1/85	**	1/85	1/85
acrolein		<500	<200	<500	<1000	<100	<100
acrylonitrile		<500	<200	<500	<1000	<100	<100
benzene		170	860	890	960	17	<5
carbon tetrachloride		<25	<10	<25	<50	<5	<5
chlorobenzene		2300	<10	370	370	100	<5
1,2-dichloroethane		<25	<10	<25	<50	25	<5
1,1,1-trichloroethane		<25	<10	<25	<50	<5	<5
1,1-dichloroethane		<25	<10	<25	<50	<5	<5
1,1,2-trichloroethane		<25	<10	<25	<50	<5	<5
1,1,2,2-tetrachloroethane		<50	<20	<50	<100	<10	<10
chloroethane		<50	<20	<50	<100	<10	<10
2-chloroethyl vinyl ether		<50	<20	<50	<100	<10	<10
chloroform		<25	<10	<25	<50	<5	<5
1,1-dichloroethylene		<25	<10	<25	<50	<5	<5
1,2-trans-dichloroethylene		<25	<10	130	150	<5	<2
1,2-dichloropropane		<50	<20	<50	<100	<10	<10
1,3-dichloropropylene		<25	<10	<25	<50	<5	<5
ethylbenzene		<25	<10	640	70	<5	<5
methylene chloride		<25	<10	<25	<50	<5	<5
methyl chloride		<50	<20	<50	<100	<10	<10
methyl bromide		<50	<20	<50	<100	<10	<10
bromoform		<50	<20	<50	<100	<10	<10
dichlorobromomethane		<25	<10	<25	<50	<5	<5
trichlorofluoromethane		<50	<20	<50	<100	<10	<10
dichlorodifluoromethane		<50	<20	<50	<100	<10	<10
chlorodibromomethane		<25	<10	<25	<50	<5	<5
tetrachloroethylene		<25	<10	<25	<50	<5	<5
toluene		16	870	1600	2000	3.1	<5
trichloroethylene		<25	<10	<25	<50	<5	<5
vinyl chloride		<50	<20	61	<100	<10	<10
acetone		<25	<10	<25	3200	<5	<5
2-butanone		<25	<10	<25	<50	<5	<5
carbon disulfide		<25	<10	<25	<50	<5	<5
2-hexanone		<25	<10	<25	<50	<5	<5
4-methyl-2-pentanone		69	<10	19	<50	<5	<5
stryrene		<25	<10	<25	<50	<5	<5
vinyl acetate		<25	<10	<25	<50	<5	<5
total xylenes		19	<10	310	350	2.6	<5

TABLE B-1. (CONTINUED/PAGE 9)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	WELL MW3	WELL MW3	WELL MW17	WELL MW17	
		11/83	1/85	11/83	1/85	**
acrolein		<100	<100	<100	<100	<200
acrylonitrile		<100	<100	<100	<100	<200
benzene		2.0	<5	92	2.8	75
carbon tetrachloride		<5	<5	<5	<5	<10
chlorobenzene		<5	<5	100	50	220
1,2-dichloroethane		<5	<5	<5	<5	<10
1,1,1-trichloroethane		<5	<5	<5	<5	<10
1,1-dichloroethane		<5	<5	<5	<5	<10
1,1,2-trichloroethane		<5	<5	<5	<5	<10
1,1,2,2-tetrachloroethane		<10	<10	<10	<10	<20
chloroethane		<10	<10	<10	<10	<20
2-chloroethyl vinyl ether		<10	<10	<10	<10	<20
chloroform		<5	<5	<5	<5	<10
1,1-dichloroethylene		<5	<5	<5	<5	<10
1,2-trans-dichloroethylene		<5	<5	330	150	140
1,2-dichloropropane		<10	<10	<10	<10	<20
1,3-dichloropropylene		<5	<5	<5	<5	<10
ethylbenzene		<5	<5	10	<5	17
methylene chloride		<5	<5	<5	<5	<10
methyl chloride		<10	<10	<10	<10	<20
methyl bromide		<10	<10	<10	<10	<20
bromoform		<10	<10	<10	<10	<20
dichlorobromomethane		<5	<5	<5	<5	<10
trichlorofluoromethane		<10	<10	<10	<10	<20
dichlorodifluoromethane		<10	<10	<10	<10	<20
chlorodibromomethane		<5	<5	<5	<5	<10
tetrachloroethylene		<5	<5	4.2	2.5	<10
toluene		<5	<5	160	11	110
trichloroethylene		<5	<5	15	6.8	6.0
vinyl chloride		<10	<10	120	67	47
acetone		<5	<5	<5	42	<10
2-butanone		<5	<5	<5	<5	<10
carbon disulfide		<5	<5	<5	<5	<10
2-hexanone		<5	<5	<5	<5	<10
4-methyl-2-pentanone		<5	<5	<5	<5	<10
stryrene		<5	<5	<5	<5	<10
vinyl acetate		<5	<5	<5	<5	<10
total xylenes		320	<5	210	140	180

TABLE B-1. (CONTINUED/PAGE 10)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	FIELD BLANK 1	FIELD BLANK 2	FIELD BLANK 3	FIELD BLANK 4	FIELD BLANK 5
acrolein		<100	<100	<100		<100
acrylonitrile		<100	<100	<100		<100
benzene		<5	<5	<5		<5
carbon tetrachloride		<5	<5	<5		<5
chlorobenzene		<5	<5	<5		<5
1,2-dichloroethane		<5	<5	<5		<5
1,1,1-trichloroethane		<5	<5	<5		<5
1,1-dichloroethane		<5	<5	<5		<5
1,1,2-trichloroethane		<5	<5	<5		<5
1,1,2,2-tetrachloroethane		<10	<10	<10		<10
chloroethane		<10	<10	<10		<10
2-chloroethyl vinyl ether		<10	<10	<10		<10
chloroform		3.7	4.2	5.2		<5
1,1-dichloroethylene		<5	<5	<5		<5
1,2-trans-dichloroethylene		<5	<5	<5		<5
1,2-dichloropropane		<10	<10	<10		<10
1,3-dichloropropylene		<5	<5	<5		<5
ethylbenzene		<5	<5	<5		<5
methylene chloride		<5	<5	290		<5
methyl chloride		<10	<10	<10		<10
methyl bromide		<10	<10	<10		<10
bromoform		<10	<10	<10		<10
dichlorobromomethane		<5	<5	<5		<5
trichlorofluoromethane		<10	<10	<10		<10
dichlorodifluoromethane		<10	<10	<10		<10
chlorodibromomethane		<5	<5	<5		<5
tetrachloroethylene		<5	<5	<5		<5
toluene		<5	<5	<5		<5
trichloroethylene		<5	<5	<5		<5
vinyl chloride		<10	<10	<10		<10
acetone		<5	<5	<5		<5
2-butanone		<5	<5	<5		<5
carbon disulfide		<5	<5	<5		<5
2-hexanone		<5	<5	<5		<5
4-methyl-2-pentanone		<5	<5	<5		<5
stryrene		<5	<5	<5		<5
vinyl acetate		<5	<5	<5		<5
total xylenes		<5	<5	<5		<5

TABLE B-1. (CONTINUED/PAGE 11)

TABLE B-1. (CONTINUED/PAGE 12)

TABLE B-1. (CONTINUED/PAGE 13)

TABLE B-1. (CONTINUED/PAGE 14)

TABLE B-1. (CONTINUED/PAGE 15)

BASE/NEUTRAL EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL BI		WELL BI		WELL 9I		WELL 9I		WELL 10I		WELL 10I	
		11/83	**	1/85		11/83	**	1/85		11/83	**	1/85	
acenaphthene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
benzidine		<40	<40	<40		<40	<40	<40		<40	<40	<40	
1,2,4-trichlorobenzene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
hexachlorobenzene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
hexachloroethane		<10	<10	<10		<10	<10	<10		<10	<10	<10	
bis(2-chloroethyl)ether		<10	<10	<10		<10	<10	<10		<10	<10	<10	
2-chloronaphthalene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
1,2-dichlorobenzene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
1,3-dichlorobenzene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
1,4-dichlorobenzene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
3,3-dichlorobenzidine		<20	<20	<20		<20	<20	<20		<20	<20	<20	
2,4-dinitrotoluene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
2,6-dinitrotoluene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
1,2-diphenylhydrazine (as azobenzene)		<20	<20	280		<20	<20	<20		<20	<20	<20	
fluoranthene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
4-chlorophenyl phenyl ether		<10	<10	<10		<10	<10	<10		<10	<10	<10	
4-bromophenyl phenyl ether		<10	<10	<10		<10	<10	<10		<10	<10	<10	
bis(2-chloroisopropyl)ether		<20	<20	<20		<20	<20	<20		<20	<20	<20	
bis(2-chloroethoxy)methane		<20	<20	<20		<20	<20	<20		<20	<20	<20	
hexachlorobutadiene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
hexachloracyclopentadiene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
isophorone		<10	<10	<10		<10	<10	<10		<10	<10	<10	
naphthalene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
nitrobenzene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
N-nitrosodiphenylamine		<10	<10	<10		<10	<10	<10		<10	<10	<10	
N-nitrosodi-n-propylamine		<10	<10	<10		<10	<10	<10		<10	<10	<10	
bis(2-ethylhexyl)phthalate		8.0	<10	<10		<10	<10	<10		<10	<10	<10	
butyl benzyl phthalate		<10	<10	<10		<10	<10	<10		<10	<10	<10	
di-n-butyl phthalate		<10	<10	<10		<10	<10	<10		<10	<10	<10	
di-n-octyl phthalate		<10	<10	<10		<10	<10	<10		<10	<10	<10	
diethyl phthalate		<10	<10	<10		<10	<10	<10		<10	<10	<10	
dimethyl phthalate		<10	<10	<10		<10	<10	<10		<10	<10	<10	
benzo(a)anthracene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
benzo(a)pyrene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
3,4-benzo fluoranthene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
benzo(k)fluoranthene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
chrysene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
acenaphthylene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
anthracene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
benzo(ghi)perylene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
fluorene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
phenanthrene		<10	<10	<10		<10	<10	<10		<10	<10	<10	
dibenzo(a,h)anthracene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
indeno(1,2,3-cd)pyrene		<20	<20	<20		<20	<20	<20		<20	<20	<20	
pyrene		<10	<10	<10		<10	<10	<10		<10	<10	<10	

TABLE B-1. (CONTINUED/PAGE 16)

TABLE B-1. (CONTINUED/PAGE 17)

TABLE B-1. (CONTINUED/PAGE 18)

BASE/NEUTRAL EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL 22I	WELL 23I	WELL 24I	WELL 25I	WELL 26I
acenaphthene		<10	<10	<10	<10	<10
benzidine		<40	<40	<40	<40	<40
1,2,4-trichlorobenzene		<10	<10	<10	<10	<10
hexachlorobenzene		<10	<10	<10	<10	<10
hexachloroethane		<10	<10	<10	<10	<10
bis(2-chloroethyl)ether		<10	<10	<10	<10	<10
2-chloronaphthalene		<10	<10	<10	<10	<10
1,2-dichlorobenzene	2000	<10	16	168	<10	<10
1,3-dichlorobenzene	4.8	<10	<10	14	<10	<10
1,4-dichlorobenzene	88	<10	4.8	56	<10	<10
3,3-dichlorobenzidine		<20	<20	<20	<20	<20
2,4-dinitrotoluene		<20	<20	<20	<20	<20
2,6-dinitrotoluene		<20	<20	<20	<20	<20
1,2-diphenylhydrazine (as azobenzene)	156	<20	<20	<20	<20	<20
fluoranthene		<10	<10	7.6	<10	<10
4-chlorophenyl phenyl ether		<10	<10	<10	<10	<10
4-bromophenyl phenyl ether		<10	<10	<10	<10	<10
bis(2-chloroisopropyl)ether		<20	<20	<20	<20	<20
bis(2-chloroethoxy)methane		<20	<20	<20	<20	<20
hexachlorobutadiene		<10	<10	<10	<10	<10
hexachlorocyclopentadiene		<10	<10	<10	<10	<10
isophorone		<10	<10	<10	<10	<10
naphthalene		<10	<10	<10	<10	<10
nitrobenzene		<10	<10	<10	<10	<10
N-nitrosodiphenylamine		<10	<10	<10	<10	<10
N-nitrosodi-n-propylamine		<10	<10	<10	<10	<10
bis(2-ethylhexyl)phthalate	31	<10	<10	64	136	<10
butyl benzyl phthalate	<10	<10	<10	<10	<10	<10
di-n-butyl phthalate	<10	<10	<10	5.2	<10	<10
di-n-octyl phthalate	<10	<10	<10	<10	<10	<10
diethyl phthalate	<10	<10	<10	22	<10	<10
dimethyl phthalate	<10	<10	<10	<10	<10	<10
benzo(a)anthracene		<10	<10	<10	<10	<10
benzo(a)pyrene		<20	<20	<20	<20	<20
3,4-benzofluoranthene		<20	<20	<20	<20	<20
benzo(k)fluoranthene		<20	<20	<20	<20	<20
chrysene		<20	<20	<20	<20	<20
acenaphthylene		<10	<10	<10	<10	<10
anthracene		<10	<10	6.8	<10	<10
benzo(ghi)perylene		<20	<20	<20	<20	<20
fluorene		<10	<10	<10	<10	<10
phenanthrene		<10	<10	6.4	<10	<10
dibenzo(a,h)anthracene		<20	<20	<20	<20	<20
indeno(1,2,3-cd)pyrene		<20	<20	<20	<20	<20
pyrene		<10	<10	5.6	<10	<10

TABLE B-1. (CONTINUED/PAGE 19)

BASE/NEUTRAL EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL MW3	WELL MW3	WELL MW17	WELL MW17	
		11/83	1/85	11/83	1/85	**
acenaphthene		<10	<10	<10	<10	<10
benzidine		<40	<40	<40	<40	<40
1,2,4-trichlorobenzene		<10	<10	29	17	26
hexachlorobenzene		<10	<10	<10	<10	<10
hexachloroethane		<10	<10	<10	<10	<10
bis(2-chloroethyl)ether		<10	<10	<10	<10	<10
2-chloronaphthalene		<10	<10	<10	<10	<10
1,2-dichlorobenzene		<10	<10	150	96	92
1,3-dichlorobenzene		<10	<10	90	110	96
1,4-dichlorobenzene		<10	<10	35	34	34
3,3-dichlorobenzidine		<20	<20	<20	<20	<20
2,4-dinitrotoluene		<20	<20	<20	<20	<20
2,6-dinitrotoluene		<20	<20	<20	<20	<20
1,2-diphenylhydrazine (as azobenzene)		<20	<20	<20	<20	<20
fluoranthene		<10	<10	<10	<10	<10
4-chlorophenyl phenyl ether		<10	<10	<10	<10	<10
4-bromophenyl phenyl ether		<10	<10	<10	<10	<10
bis(2-chloroisopropyl)ether		<20	<20	<20	<20	<20
bis(2-chloroethoxy)methane		<20	<20	<20	<20	<20
hexachlorobutadiene		<10	<10	<10	<10	<10
hexachlorocyclopentadiene		<10	<10	<10	<10	<10
isophorone		<10	<10	<10	<10	<10
naphthalene		<10	<10	7.5	<10	7
nitrobenzene		<10	<10	<10	<10	<10
N-nitrosodiphenylamine		<10	<10	<10	<10	<10
N-nitrosodi-n-propylamine		<10	<10	<10	<10	<10
bis(2-ethylhexyl)phthalate		<10	<10	<10	<10	<10
butyl benzyl phthalate		<10	<10	<10	<10	<10
di-n-butyl phthalate		<10	<10	<10	<10	<10
di-n-octyl phthalate		<10	<10	<10	<10	<10
diethyl phthalate		<10	<10	<10	<10	<10
dimethyl phthalate		<10	<10	<10	<10	<10
benzo(a)anthracene		<10	<10	<10	<10	<10
benzo(a)pyrene		<20	<20	<20	<20	<20
3,4-benzo fluoranthene		<20	<20	<20	<20	<20
benzo(k)fluoranthene		<20	<20	<20	<20	<20
chrysene		<20	<20	<20	<20	<20
acenaphthylene		<10	<10	<10	<10	<10
anthracene		<10	<10	<10	<10	<10
benzo(ghi)perylene		<20	<20	<20	<20	<20
fluorene		<10	<10	<10	<10	<10
phenanthrene		<10	<10	<10	<10	<10
dibenzo(a,h)anthracene		<20	<20	<20	<20	<20
indeno(1,2,3-cd)pyrene		<20	<20	<20	<20	<20
pyrene		<10	<10	<10	<10	<10

TABLE B-1. (CONTINUED/PAGE 20)

BASE/NEUTRAL EXTRACTABLE COMPOUNDS	SAMPLING DATE:	FIELD BLANK 1	FIELD BLANK 2	FIELD BLANK 3	FIELD BLANK 4	FIELD BLANK 5
		=====	=====	=====	=====	=====
acenaphthene		<10	<10	<10	<10	<10
benzidine		<40	<40	<40	<40	<40
1,2,4-trichlorobenzene		<10	<10	<10	<10	<10
hexachlorobenzene		<10	<10	<10	<10	<10
hexachloroethane		<10	<10	<10	<10	<10
bis(2-chloroethyl)ether		<10	<10	<10	<10	<10
2-chloronaphthalene		<10	<10	<10	<10	<10
1,2-dichlorobenzene		<10	<10	<10	<10	<10
1,3-dichlorobenzene		<10	<10	<10	<10	<10
1,4-dichlorobenzene		<10	<10	<10	<10	<10
3,3-dichlorobenzidine		<20	<20	<20	<20	<20
2,4-dinitrotoluene		<20	<20	<20	<20	<20
2,6-dinitrotoluene		<20	<20	<20	<20	<20
1,2-diphenylhydrazine (as azobenzene)		<20	<20	<20	<20	<20
fluoranthene		<10	<10	<10	<10	<10
4-chlorophenyl phenyl ether		<10	<10	<10	<10	<10
4-bromophenyl phenyl ether		<10	<10	<10	<10	<10
bis(2-chloroisopropyl)ether		<20	<20	<20	<20	<20
bis(2-chloroethoxy)methane		<20	<20	<20	<20	<20
hexachlorobutadiene		<10	<10	<10	<10	<10
hexachlorocyclopentadiene		<10	<10	<10	<10	<10
isophorone		<10	<10	<10	<10	<10
naphthalene		<10	<10	<10	<10	<10
nitrobenzene		<10	<10	<10	<10	<10
N-nitrosodiphenylamine		<10	<10	<10	<10	<10
N-nitrosodi-n-propylamine		<10	<10	<10	<10	<10
bis(2-ethylhexyl)phthalate	80	25	<10	<10	<10	<10
butyl benzyl phthalate		<10	<10	<10	<10	<10
di-n-butyl phthalate		<10	<10	<10	<10	<10
di-n-octyl phthalate		<10	<10	<10	<10	<10
diethyl phthalate		<10	<10	<10	<10	<10
dimethyl phthalate		<10	<10	<10	<10	<10
benzo(a)anthracene		<10	<10	<10	<10	<10
benzo(a)pyrene		<20	<20	<20	<20	<20
3,4-benzofluoranthene		<20	<20	<20	<20	<20
benzo(k)fluoranthene		<20	<20	<20	<20	<20
chrysene		<20	<20	<20	<20	<20
acenaphthylene		<10	<10	<10	<10	<10
anthracene		<10	<10	<10	<10	<10
benzo(ghi)perylene		<20	<20	<20	<20	<20
fluorene		<10	<10	<10	<10	<10
phenanthrene		<10	<10	<10	<10	<10
dibenzo(a,h)anthracene		<20	<20	<20	<20	<20
indeno(1,2,3-cd)pyrene		<20	<20	<20	<20	<20
pyrene		<10	<10	<10	<10	<10

TABLE B-1. (CONTINUED/PAGE 21)

TABLE B-1. (CONTINUED/PAGE 22)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL 4I =====	WELL 4I =====	WELL 5I =====	WELL 5I =====	WELL 6I =====	WELL 6I =====
		11/83	1/85	11/83	1/85	11/83	1/85
2,4,6-trichlorophenol		<10	NR	<10	NR	<10	<10
p-chloro-m-cresol		<10	NR	<10	NR	<10	<10
2-chlorophenol		<10	NR	<10	NR	<10	<10
2,4-dichlorophenol		<10	NR	<10	NR	<10	<10
2,4-dimethylphenol		<10	NR	<10	NR	<10	<10
2-nitrophenol		<20	NR	<20	NR	<20	<20
4-nitrophenol		<50	NR	<50	NR	<50	<50
2,4-dinitrophenol		<50	NR	<50	NR	<50	<50
4,6-dinitro-o-cresol		<20	NR	<20	NR	<20	<20
pentachlorophenol		<10	NR	<10	NR	<10	<10
phenol		<10	NR	<10	NR	88	336 196
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL 7G =====	WELL 7S =====	WELL 7I =====	WELL 7I =====	WELL 7D =====	WELL 7D =====
		11/83	1/85	11/83	1/85	11/83	1/85
2,4,6-trichlorophenol		<10	NR	<10	<10	<10	<10
p-chloro-m-cresol		<10	NR	<10	<10	<10	<10
2-chlorophenol		<10	NR	<10	<10	<10	<10
2,4-dichlorophenol		<10	NR	<10	<10	<10	<10
2,4-dimethylphenol		<10	NR	<10	<10	<10	<10
2-nitrophenol		<20	NR	<20	<20	<20	<20
4-nitrophenol		<50	NR	<50	<50	<50	<50
2,4-dinitrophenol		<50	NR	<50	<50	<50	<50
4,6-dinitro-o-cresol		<20	NR	<20	<20	<20	<20
pentachlorophenol		<10	NR	<10	<10	<10	<10
phenol		<10	NR	8.2	21	<10	<10

TABLE B-1. (CONTINUED/PAGE 23)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL 8I		WELL 8I		WELL 9I		WELL 9I		WELL 10I		WELL 10I	
		11/83	**	1/85		11/83	**	1/85		11/83	**	1/85	
2,4,6-trichlorophenol		<10	<10	<10		<10	<10	NR		<10	<10	<10	
p-chloro-m-cresol		<10	<10	<10		<10	<10	NR		<10	<10	<10	
2-chlorophenol		<10	<10	<10		<10	<10	NR		<10	<10	<10	
2,4-dichlorophenol		<10	<10	<10		<10	<10	NR		<10	<10	<10	
2,4-dimethylphenol		<10	<10	<10		<10	<10	NR		<10	<10	<10	
2-nitrophenol		<20	<20	<20		<20	<20	NR		<20	<20	<20	
4-nitrophenol		<50	<50	<50		<50	<50	NR		<50	<50	<50	
2,4-dinitrophenol		<50	<50	<50		<50	<50	NR		<50	<50	<50	
4,6-dinitro-o-cresol		<20	<20	<20		<20	<20	NR		<20	<20	<20	
pentachlorophenol		<10	<10	<10		<10	<10	NR		<10	<10	<10	
phenol		<10	<10	<10		<10	<10	NR		<10	<10	<10	
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL 11I		WELL 11I		WELL 12I		WELL 13I		WELL 14I		WELL 15I	
		11/83		1/85		1/85		1/85		1/85		1/85	
2,4,6-trichlorophenol		<10		NR		<10		<10		<10		<10	
p-chloro-m-cresol		<10		NR		<10		<10		<10		<10	
2-chlorophenol		<10		NR		8.8		<10		<10		<10	
2,4-dichlorophenol		<10		NR		<10		<10		<10		<10	
2,4-dimethylphenol		<10		NR		<10		36		<10		<10	
2-nitrophenol		<20		NR		<20		<20		<20		<20	
4-nitrophenol		<50		NR		<50		<50		<50		<50	
2,4-dinitrophenol		<50		NR		<50		<50		<50		<50	
4,6-dinitro-o-cresol		<20		NR		<20		<20		<20		<20	
pentachlorophenol		<10		NR		<10		<10		<10		<10	
phenol		<10		NR		22		114		<10		<10	

TABLE B-1. (CONTINUED/PAGE 24)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL 16I =====	WELL 17I =====	WELL 18I =====	WELL 19I =====	WELL 20I =====	WELL 21I =====
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	1/85	1/85	1/85	1/85	**	1/85
2,4,6-trichlorophenol		<10	<10	<10	<10	<10	<10
p-chloro-m-cresol		<10	<10	<10	<10	<10	<10
2-chlorophenol		<10	48	<10	<10	<10	<10
2,4-dichlorophenol		<10	<10	<10	<10	<10	<10
2,4-dimethylphenol		<10	<10	<10	<10	<10	<10
2-nitrophenol		<20	<20	<20	<20	<20	<20
4-nitrophenol		<50	<50	<50	<50	<50	<50
2,4-dinitrophenol		<50	<50	<50	<50	<50	<50
4,6-dinitro-o-cresol		<20	<20	<20	<20	<20	<20
pentachlorophenol		<10	<10	<10	<10	<10	<10
phenol		<10	480	<10	<10	<10	33
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL 22I =====	WELL 23I =====	WELL 24I =====	WELL 25I =====	WELL 26I =====	
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	1/85	1/85	1/85	**	1/85	**
2,4,6-trichlorophenol		<10	<10	<10	<10	<10	<10
p-chloro-m-cresol		<10	<10	<10	<10	<10	<10
2-chlorophenol		<10	<10	<10	<10	<10	<10
2,4-dichlorophenol		<10	<10	<10	<10	<10	<10
2,4-dimethylphenol		<10	<10	<10	<10	<10	<10
2-nitrophenol		<20	<20	<20	<20	<20	<20
4-nitrophenol		<50	<50	<50	<50	<50	<50
2,4-dinitrophenol		<50	<50	<50	<50	<50	<50
4,6-dinitro-o-cresol		<20	<20	<20	<20	<20	<20
pentachlorophenol		<10	<10	<10	<10	<10	<10
phenol		<10	580	13	100	<10	<10

TABLE B-1. (CONTINUED/PAGE 25)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	WELL MW3	WELL MW3	WELL MW17	WELL MW17
		11/83	1/85	11/83	1/85
FIELD BLANK 1	FIELD BLANK 2	FIELD BLANK 3	FIELD BLANK 4	FIELD BLANK 5	
2,4,6-trichlorophenol		<10	NR	<10	NR
p-chloro-m-cresol		<10	NR	<10	NR
2-chlorophenol		<10	NR	<10	NR
2,4-dichlorophenol		<10	NR	<10	NR
2,4-dimethylphenol		<10	NR	<10	NR
2-nitrophenol		<20	NR	<20	NR
4-nitrophenol		<50	NR	<50	NR
2,4-dinitrophenol		<50	NR	<50	NR
4,6-dinitro-o-cresol		<20	NR	<20	NR
pentachlorophenol		<10	NR	<10	NR
phenol		<10	NR	<10	NR
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	1/85	1/85	1/85	1/85
2,4,6-trichlorophenol		<10	<10	<10	<10
p-chloro-m-cresol		<10	<10	<10	<10
2-chlorophenol		<10	<10	<10	<10
2,4-dichlorophenol		<10	<10	<10	<10
2,4-dimethylphenol		<10	<10	<10	<10
2-nitrophenol		<20	<20	<20	<20
4-nitrophenol		<50	<50	<50	<50
2,4-dinitrophenol		<50	<50	<50	<50
4,6-dinitro-o-cresol		<20	<20	<20	<20
pentachlorophenol		<10	<10	<10	<10
phenol		<10	<10	<10	<10

TABLE B-1. (CONTINUED/PAGE 26)

TABLE B-1. (CONTINUED/PAGE 27)

TABLE B-1. (CONTINUED/PAGE 28)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	WELL 18 =====	WELL 26 =====	WELL 2I =====	WELL 3S =====	WELL 3I =====	WELL 3O =====
aldrin		<10	<10	<10		<10	<10
B-BHC		<10	<10	<10		<10	<10
D-BHC		<10	<10	<10		<10	<10
chlordane		<100	<100	<100		<100	<100
4,4'-DDD		<10	<10	<10		<10	<10
4,4'-DDE		<10	<10	<10		<10	<10
4,4'-DDT		<10	<10	<10		<10	<10
dieldrin		<10	<10	<10		<10	<10
endosulfan sulfate		<20	<20	<20		<20	<20
endrin aldehyde		<20	<20	<20		<20	<20
heptachlor		<10	<10	<10		<10	<10
heptachlor epoxide		<10	<10	<10		<10	<10
PCB		<50	<50	<50		<50	<50
toxaphene		<500	<500	<500		<500	<500

TABLE B-1. (CONTINUED/PAGE 29)

TABLE B-1. (CONTINUED/PAGE 30)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	WELL 20I	WELL 21I	WELL 22I	WELL 23I	WELL 24I	WELL 25I
aldrin		<10	<10	<10	<10	<10	<10
B-BHC		<10	<10	<10	<10	<10	<10
D-BHC		<10	<10	<10	<10	<10	<10
chlordane		<100	<100	<100	<100	<100	<100
4,4'-DDD		<10	<10	<10	<10	<10	<10
4,4'-DDE		<10	<10	<10	<10	<10	<10
4,4'-DDT		<10	<10	<10	<10	<10	<10
dieldrin		<10	<10	<10	<10	<10	<10
endosulfan sulfate		<20	<20	<20	<20	<20	<20
endrin aldehyde		<20	<20	<20	<20	<20	<20
heptachlor		<10	<10	<10	<10	<10	<10
heptachlor epoxide		<10	<10	<10	<10	<10	<10
PCB		<50	<50	<50	1100	<50	46
toxaphene		<500	<500	<500	<500	<500	<500
		WELL 26I		WELL MW3		WELL MW17	
PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	1/85	**	1/85	1/85	**	
aldrin		<10	<10	<10	<10	<10	
B-BHC		<10	<10	<10	<10	<10	
D-BHC		<10	<10	<10	<10	<10	
chlordane		<100	<100	<100	<100	<100	
4,4'-DDD		<10	<10	<10	<10	<10	
4,4'-DDE		<10	<10	<10	<10	<10	
4,4'-DDT		<10	<10	<10	<10	<10	
dieldrin		<10	<10	<10	<10	<10	
endosulfan sulfate		<20	<20	<20	<20	<20	
endrin aldehyde		<20	<20	<20	<20	<20	
heptachlor		<10	<10	<10	<10	<10	
heptachlor epoxide		<10	<10	<10	<10	<10	
PCB		4.3	3.2	<50	<50	<50	
toxaphene		<500	<500	<500	<500	<500	

TABLE B-1. (CONTINUED/PAGE 31)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	FIELD BLANK 1	FIELD BLANK 2	FIELD BLANK 3	FIELD BLANK 4	FIELD BLANK 5
aldrin		<10	<10	<10	<10	<10
B-BHC		<10	<10	<10	<10	<10
D-BHC		<10	<10	<10	<10	<10
chlordane		<100	<100	<100	<100	<100
4,4'-DDD		<10	<10	<10	<10	<10
4,4'-DDE		<10	<10	<10	<10	<10
4,4'-DDT		<10	<10	<10	<10	<10
dieldrin		<10	<10	<10	<10	<10
endosulfan sulfate		<20	<20	<20	<20	<20
endrin aldehyde		<20	<20	<20	<20	<20
heptachlor		<10	<10	<10	<10	<10
heptachlor epoxide		<10	<10	<10	<10	<10
PCB		<50	<50	<50	<50	<50
toxaphene		<500	<500	<500	<500	<500

TABLE B-1. (CONTINUED/PAGE 32)

		WELL 1S	WELL 1S	WELL 2S	WELL 2S	WELL 2I	WELL 2I
OTHER CONSTITUENTS	SAMPLING DATE:	11/83	1/85	11/83	1/85	11/83	1/85
phenol as phenol (mg/L)		0.001	<0.001	0.001	0.005	0.17	0.08
arsenic as As (mg/L)		0.002	0.004	0.009	0.008	<0.002	0.003
chromium as Cr (mg/L)		0.010	<0.02	0.03	<0.02	0.005	<0.02
cyanide as CN (mg/L)		<0.02	<0.02	0.02	0.02	<0.02	<0.02
lead as Pb (mg/L)		0.012	<0.005	0.058	0.012	0.076	0.009
manganese as Mn (mg/L)		18.0	23	0.04	0.08	0.50	1.0
zinc as Zn (mg/L)		0.02	0.02	0.03	0.03	0.02	0.02
cadmium as Cd (mg/L)		0.009	<0.002	0.002	<0.001	0.002	<0.001
pH		5.9		7.6		6.7	
specific cond. (umhos/cm)		7500		2800		2010	
total organic carbon (mg/L)			70		510		70
mercury as Hg (mg/L)			<0.0005		<0.0005		<0.0005
iron as Fe (mg/L)			0.24		1.5		0.36
		WELL 3S	WELL 3S	WELL 3I	WELL 3I	WELL 3D	WELL 3D
OTHER CONSTITUENTS	SAMPLING DATE:	11/83	1/85	11/83	1/85	** 11/83	** 1/85
phenol as phenol (mg/L)		0.004	0.003	0.05	0.006	0.007	ND
arsenic as As (mg/L)		0.01	0.012	0.006	0.002	<0.002	<0.002
chromium as Cr (mg/L)		0.05	<0.02	0.005	<0.02	<0.02	<0.02
cyanide as CN (mg/L)		0.01	<0.02	<0.02	<0.02	<0.02	<0.02
lead as Pb (mg/L)		0.11	<0.005	0.090	0.007	<0.005	0.010
manganese as Mn (mg/L)		5.0	0.08	3.2	5.5	5.5	0.02
zinc as Zn (mg/L)		0.15	<0.02	<0.02	0.03	0.04	<0.02
cadmium as Cd (mg/L)		0.002	<0.001	0.005	<0.001	<0.001	<0.001
pH		6.1		6.2		5.8	
specific cond. (umhos/cm)		1450		2500		450	
total organic carbon (mg/L)			150		90	80	150
mercury as Hg (mg/L)			<0.0005		<0.0005	<0.0005	
iron as Fe (mg/L)			0.16		9.5	9.0	0.86

TABLE B-1. (CONTINUED/PAGE 33)

	SAMPLING DATE:	WELL 4I	WELL 4I	WELL 5I	WELL 5I	WELL 6I	WELL 6I
OTHER CONSTITUENTS		11/83	1/85	11/83	1/85	11/83	1/85
phenol as phenol (mg/L)		0.005	0.012	0.019	<0.001	1.2	0.060 0.070
arsenic as As (mg/L)		<0.002	0.002	0.003	<0.002	0.003	0.003 0.002
chromium as Cr (mg/L)		<0.005	<0.02	<0.005	<0.02	<0.005	<0.02 <0.02
cyanide as CN (mg/L)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02 <0.02
lead as Pb (mg/L)		0.28	<0.005	0.028	<0.005	0.013	<0.005 <0.005
manganese as Mn (mg/L)		1.4	2.6	2.9	1.2	0.72	0.54 0.54
zinc as Zn (mg/L)		<0.02	0.02	<0.02	0.03	0.02	0.04 0.04
cadmium as Cd (mg/L)		<0.001	<0.001	<0.001	0.002	<0.001	<0.001 <0.001
pH		6.5		6.4		6.5	
specific cond. (umhos/cm)		1200		1250		950	
total organic carbon (mg/L)			75		35		60 90
mercury as Hg (mg/L)			<0.0005		<0.0005		<0.0005 <0.0005
iron as Fe (mg/L)			6.6		2.1		28 27
		WELL 7S	WELL 7S	WELL 7I	WELL 7I	WELL 7D	WELL 7D
OTHER CONSTITUENTS	SAMPLING DATE:	11/83	1/85	11/83	1/85	11/83	1/85
phenol as phenol (mg/L)		0.003	0.007	0.064	0.040	ND	<0.001
arsenic as As (mg/L)		<0.002	0.009	0.021	0.060	<0.002	<0.002
chromium as Cr (mg/L)		0.008	<0.02	0.011	<0.02	0.005	<0.02
cyanide as CN (mg/L)		0.02	<0.02	<0.02	<0.02	<0.02	<0.02
lead as Pb (mg/L)		0.088	0.013	0.040	<0.01	0.006	<0.005
manganese as Mn (mg/L)		0.46	<0.02	0.67	1.4	0.07	0.04
zinc as Zn (mg/L)		0.22	0.04	0.04	0.04	<0.02	0.04
cadmium as Cd (mg/L)		0.006	0.007	<0.001	<0.002	<0.001	<0.001
pH		8.4		6.8		5.7	
specific cond. (umhos/cm)		3750		2500		350	
total organic carbon (mg/L)			240		210		140
mercury as Hg (mg/L)			<0.0005		<0.0005		<0.0005
iron as Fe (mg/L)			0.24		22		<0.05

TABLE B-1. (CONTINUED/PAGE 34)

	SAMPLING DATE:	WELL 8I	WELL 8I	WELL 9I	WELL 9I	WELL 10I	WELL 10I
OTHER CONSTITUENTS		11/83	** 1/85	11/83	** 1/85	11/83	1/85
phenol as phenol (mg/L)		0.002	0.004	0.005	0.004	ND <0.001	0.031
arsenic as As (mg/L)		<0.002	<0.002	<0.002	0.005	<0.002	0.007
chromium as Cr (mg/L)		<0.005	<0.005	<0.02	0.010	<0.005	<0.005
cyanide as CN (mg/L)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
lead as Pb (mg/L)		0.060	0.012	0.009	0.011	0.044	0.006
manganese as Mn (mg/L)		0.50	0.47	0.92	1.5	1.6	1.4
zinc as Zn (mg/L)		0.02	0.02	0.03	0.04	0.02	0.06
cadmium as Cd (mg/L)		0.003	0.003	<0.001	<0.001	<0.001	<0.001
pH		6.5		6.6		6.5	
specific cond. (umhos/cm)		2250		3500		1100	
total organic carbon (mg/L)			55		130		52
mercury as Hg (mg/L)			<0.0005		<0.0005		<0.0005
iron as Fe (mg/L)			3.0		1.5		3.0
	SAMPLING DATE:	WELL 11I	WELL 11I	WELL MW3	WELL MW3	WELL MW17	WELL MW17
OTHER CONSTITUENTS		11/83	1/85	11/83	1/85	11/83	1/85
phenol as phenol (mg/L)		0.24	0.054	0.12	0.06	0.53	0.24
arsenic as As (mg/L)		0.025	0.11	<0.002	<0.002	0.029	0.066
chromium as Cr (mg/L)		<0.005	<0.02	0.019	0.03	0.006	<0.02
cyanide as CN (mg/L)		0.24	2.8	<0.02	<0.02	0.36	0.44
lead as Pb (mg/L)		0.052	0.016	0.044	0.008	0.080	<0.01
manganese as Mn (mg/L)		1.5	15	2.2	3.0	27.0	28
zinc as Zn (mg/L)		0.03	0.03	0.03	0.03	0.02	0.03
cadmium as Cd (mg/L)		0.003	<0.001	0.003	<0.001	0.002	0.004
pH		6.6		5.9		7.1	
specific cond. (umhos/cm)		1850		2000		2500	
total organic carbon (mg/L)			95		150		87
mercury as Hg (mg/L)			<0.0005		<0.0005		<0.0005
iron as Fe (mg/L)			23		72		1.8

TABLE B-1. (CONTINUED/PAGE 35)

		WELL 12I	WELL 13I	WELL 14I	WELL 15I	WELL 16I	WELL 17I
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
total organic carbon (mg/L)		240	140	110	130	40	--
antimony as Sb (mg/L)		0.013	0.014	0.011	0.020	0.015	0.010
arsenic as As (mg/L)		0.009	0.005	0.028	<0.002	0.005	<0.002
beryllium as Be (mg/L)		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cadmium as Cd (mg/L)		0.002	0.003	0.001	<0.001	<0.001	<0.001
chromium as Cr (mg/L)		0.03	<0.02	<0.02	<0.02	<0.02	<0.02
copper as Cu (mg/L)		0.02	<0.02	<0.02	<0.02	<0.02	<0.02
lead as Pb (mg/L)		0.048	0.036	0.028	0.009	<0.005	<0.005
mercury as Hg (mg/L)		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
nickel as Ni (mg/L)		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
selenium as Se (mg/L)		<0.005	<0.002	<0.002	<0.002	<0.002	<0.002
silver as Ag (mg/L)		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
thallium as Tl (mg/L)		<0.02	0.007	0.008	0.014	0.012	<0.005
zinc as Zn (mg/L)		0.10	0.04	0.08	0.88	0.18	0.06
		WELL 18I	WELL 19I	WELL 20I	WELL 21I	WELL 22I	WELL 23I
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
total organic carbon (mg/L)		420	110	95	350	460	210
antimony as Sb (mg/L)		0.020	0.048	0.056	0.016	0.016	0.08
arsenic as As (mg/L)		0.008	0.015	0.011	0.010	0.010	0.003
beryllium as Be (mg/L)		0.002	<0.001	0.001	0.002	0.001	<0.001
cadmium as Cd (mg/L)		0.008	0.003	<0.001	0.006	0.005	0.002
chromium as Cr (mg/L)		<0.02	<0.02	<0.02	<0.02	0.02	<0.02
copper as Cu (mg/L)		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
lead as Pb (mg/L)		0.026	0.008	0.013	0.024	<0.01	0.013
mercury as Hg (mg/L)		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
nickel as Ni (mg/L)		<0.10	<0.10	0.10	0.02	<0.10	<0.10
selenium as Se (mg/L)		<0.002	<0.002	<0.002	<0.002	<0.005	<0.002
silver as Ag (mg/L)		0.01	<0.01	<0.01	0.01	<0.01	<0.01
thallium as Tl (mg/L)		0.04	<0.01	0.012	0.054	0.011	0.052
zinc as Zn (mg/L)		0.06	0.04	0.04	0.03	0.13	0.05

TABLE B-1. (CONTINUED/PAGE 36)

OTHER CONSTITUENTS	SAMPLING DATE:	WELL 24I		WELL 25I		WELL 26I	
		1/85	**	1/85	**	1/85	**
total organic carbon (mg/L)		140	130	--		40	45
antimony as Sb (mg/L)		<0.005	<0.005	0.022		0.06	0.018
arsenic as As (mg/L)		<0.002	<0.002	0.005		0.010	<0.002
beryllium as Be (mg/L)		<0.001	<0.001	0.001		0.002	<0.001
cadmium as Cd (mg/L)		<0.001	<0.001	<0.001		<0.004	<0.001
chromium as Cr (mg/L)		<0.02	<0.02	<0.02		0.15	<0.02
copper as Cu (mg/L)		<0.02	<0.02	<0.02		0.14	<0.02
lead as Pb (mg/L)		<0.005	<0.005	0.007		0.14	<0.005
mercury as Hg (mg/L)		<0.0005	<0.0005	<0.0005		0.001	<0.0005
nickel as Ni (mg/L)		<0.10	<0.10	0.10		0.10	<0.10
selenium as Se (mg/L)		<0.002	<0.002	<0.002		<0.005	<0.002
silver as Ag (mg/L)		<0.01	<0.01	<0.01		<0.01	<0.01
thallium as Tl (mg/L)		<0.005	<0.005	<0.005		<0.01	0.005
zinc as Zn (mg/L)		<0.02	<0.02	0.06		2.1	0.02
OTHER CONSTITUENTS	SAMPLING DATE:	FIELD BLANK 1	FIELD BLANK 2	FIELD BLANK 3	FIELD BLANK 4	FIELD BLANK 5	
		1/85	1/85	1/85	1/85	1/85	
phenol as phenol (mg/L)		<0.001	<0.002	<0.001	<0.001	<0.001	
arsenic as As (mg/L)		<0.002	<0.002	<0.002	0.003	<0.002	
chromium as Cr (mg/L)		<0.02	<0.02	<0.02	<0.02	<0.02	
cyanide as CN (mg/L)		<0.02	<0.02	<0.02	<0.02	<0.02	
lead as Pb (mg/L)		<0.005	0.008	<0.005	<0.005	<0.005	
manganese as Mn (mg/L)		<0.02	<0.02	<0.02	0.02	<0.02	
zinc as Zn (mg/L)		0.02	0.02	<0.02	<0.02	<0.02	
cadmium as Cd (mg/L)		<0.001	<0.001	<0.001	<0.001	<0.001	
total organic carbon (mg/L)		18	<10	<10	10	12	
mercury as Hg (mg/L)		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
iron as Fe (mg/L)		<0.05	<0.05	<0.05	<0.05	<0.05	

** - Indicates a replicate sampling.

TABLE B-1. (CONTINUED/PAGE 37)

		WELL 3S	WELL 12I	WELL 13I	WELL 17I	WELL 18I	WELL 21I
VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
furan, tetrahydro-tetramethyl		ND	ND	560	ND	ND	ND
benzene-1-chlor-2-methyl		ND	70	ND	ND	ND	ND
bicyclo-heptanone-trimethyl		ND	70	ND	ND	ND	ND
BASE/NEUTRAL EXTRACTABLE COMPOUNDS							
ethanol, 1-(2-butoxyethoxy)		ND	ND	ND	ND	ND	ND
benzene, (methyl sulfonyl)		ND	ND	ND	ND	50	ND
benzene, 1,1'-sulfonyl bis		ND	ND	ND	ND	190	ND
cyclohexane, 3,3,5-trimethyl		ND	ND	ND	ND	ND	1300
ethane, 1,2-bis(2 chloroethoxy)		ND	ND	ND	ND	ND	3300
alkane		ND	ND	ND	ND	ND	190
sulfur		ND	ND	ND	ND	ND	ND
methanone, diphenyl		ND	ND	ND	ND	ND	ND
benzene, 1,1'-methylene bis		ND	ND	ND	ND	ND	ND
benzene, 1-(1,1-dimethylethyl)		ND	ND	15000	ND	ND	ND
benzene, acetonitrile		ND	ND	3200	ND	ND	ND
benzene, 1,1'-(oxy bis(methylene))		ND	ND	1900	ND	ND	ND
ACID EXTRACTABLE COMPOUNDS							
benzoic acid, 4(-1,1-dimethylethyl)		35	ND	ND	170	ND	ND
phenol, 4-(1,1-dimethylethyl)		ND	ND	ND	ND	ND	4800
benzoic acid, 4-chloro		ND	ND	ND	ND	ND	230
phenol, 2,4-bis(1-methylethyl)		ND	ND	ND	ND	ND	ND
phenol, 2,6-bis(1,1-dimethylethyl)		ND	ND	ND	ND	ND	ND
benzene, acetic acid		ND	ND	490	ND	ND	ND
benzoic acid, 3-methyl		ND	ND	430	ND	ND	ND

TABLE B-1. (CONTINUED/PAGE 38)

		WELL 22I	WELL 24I	WELL 25I
VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	1/85	1/85	** 1/85
furan, tetrahydro-tetramethyl		ND	ND	ND
benzene-1-chlor-2-methyl		ND	ND	ND
bicyclo-heptanone-trimethyl		ND	ND	ND
BASE/NEUTRAL EXTRACTABLE COMPOUNDS				
ethanol, 1-(2-butoxyethoxy)		ND	ND	ND
benzene, (methyl sulfonyl)		ND	ND	ND
benzene, 1,1'-sulfonyl bis	210	ND	ND	350
cyclohexane, 3,3,5-trimethyl		ND	ND	ND
ethane, 1,2-bis(2 chloroethoxy)		ND	ND	ND
alkane	45	2400	840	60
sulfur		ND	ND	ND
methanone, diphenyl	200	ND	ND	ND
benzene, 1,1'-methylene bis	390	ND	ND	ND
benzene, 1-(1,1-dimethylethyl)		2100	990	ND
benzene, acetonitrile		ND	ND	ND
benzene, 1,1'-(oxy bis(methylene))		ND	ND	ND
ACID EXTRACTABLE COMPOUNDS				
benzoic acid, 4(-1,1-dimethylethyl)	100	ND	ND	ND
phenol, 4-(1,1-dimethylethyl)	ND	760	ND	ND
benzoic acid, 4-chloro		ND	ND	ND
phenol, 2,4-bis(1-methylethyl)		ND	ND	130
phenol, 2,6-bis(1,1-dimethylethyl)		ND	ND	840
benzene, acetic acid		ND	ND	ND
benzoic acid, 3-methyl		ND	ND	ND

** - Indicates a replicate sampling.

TABLE B-2. SUMMARY OF SURFACE WATER QUALITY DATA FOR UOP INC.'S PLANT
IN EAST RUTHERFORD, NEW JERSEY

CHEMICAL CONCENTRATIONS (reported in micrograms/liter, except where noted)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE: =====	ST-1 ====	ST-1 ====	ST-2 ====	ST-3 ====	ST-3 ====	ST-4 ====
acrolein	11/83	<100	<100	<100	<100	<100	<100
acrylonitrile		<100	<100	<100	<100	<200	<100
benzene		<5	4.7	<5	<5	8.3	<5
carbon tetrachloride		<5	<5	<5	<5	<10	<5
chlorobenzene		<5	6.6	<5	<5	21	<5
1,2-dichloroethane		<5	<5	<5	<5	<10	<5
1,1,1-trichloroethane		<5	3.1	<5	<5	7.6	<5
1,1-dichloroethane		<5	4.8	<5	<5	15	<5
1,1,2-trichloroethane		<5	<5	<5	<5	<10	<5
1,1,2,2-tetrachloroethane		<10	<10	<10	<10	19	<10
chloroethane		<10	<10	<10	<10	<20	<10
2-chloroethyl vinyl ether		<10	<10	<10	<10	<20	<10
chloroform		<5	12	<5	<5	<10	<5
1,1-dichloroethylene		<5	<5	<5	<5	<10	<5
1,2-trans-dichloroethylene		<5	9.1	<5	<5	200	<5
1,2-dichloropropane		<10	9.4	<10	<10	<20	<10
1,3-dichloropropylene		<5	<5	<5	<5	<10	<5
ethylbenzene		<5	<5	<5	<5	<10	<5
methylene chloride		<5	<5	<5	<5	<10	<5
methyl chloride		<10	<10	<10	<10	<20	<10
methyl bromide		<10	<10	<10	<10	<20	<10
bromoform		<10	<10	<10	<10	<20	<10
dichlorobromomethane		<5	<5	<5	<5	<10	<5
trichlorofluoromethane		<10	<10	<10	<10	<20	<10
dichlorodifluoromethane		<10	<10	<10	<10	<20	<10
chlorodibromomethane		<5	<5	<5	<5	<10	<5
tetrachloroethylene		<5	<5	<5	<5	<10	<5
toluene		<5	4.1	<5	<5	53	<5
trichloroethylene		<5	79	<5	<5	230	<5
vinyl chloride		<10	16	<10	<10	<20	<10
acetone		<5	30	<5	<5	2074	<5
2-butanone		<5	<5	<5	<5	7.5	<5
carbon disulfide		<5	<5	<5	<5	<10	<5
2-hexanone		<5	<5	<5	<5	<10	<5
4-methyl-2-pentanone		<5	<5	<5	<5	<10	<5
stryrene		<5	<5	<5	<5	<10	<5
vinyl acetate		<5	<5	<5	<5	<10	<5
total xylenes		<5	<5	<5	<5	<10	<5

** - Indicates a blind replicate sample.

TABLE B-2. (CONTINUED/PAGE 2)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	ST-5 ====	ST-6 ====	ST-6 ====	ST-7 ====	ST-8 ====
acrolein		<100	<100	<100	<100	<100
acrylonitrile		<100	<100	<100	<100	<100
benzene		<5	<5	<5	<5	<5
carbon tetrachloride		<5	<5	<5	<5	<5
chlorobenzene		<5	<5	<5	<5	<5
1,2-dichloroethane		<5	<5	<5	<5	<5
1,1,1-trichloroethane		<5	<5	4.1	3.7	4.4
1,1-dichloroethane		<5	<5	<5	<5	<5
1,1,2-trichloroethane		<5	<5	<5	<5	<5
1,1,2,2-tetrachloroethane		<10	<10	<10	2.8	3.5
chloroethane		<10	<10	<10	<10	<10
2-chloroethyl vinyl ether		<10	<10	<10	<10	<10
chloroform		<5	<5	<5	<5	<5
1,1-dichloroethylene		<5	<5	<5	<5	<5
1,2-trans-dichloroethylene		<5	<5	4.5	19	23
1,2-dichloropropane		<10	<10	<10	<10	<10
1,3-dichloropropylene		<5	<5	<5	<5	<5
ethylbenzene		<5	<5	<5	<5	<5
methylene chloride		<5	470	16	19	17
methyl chloride		<10	<10	<10	<10	<10
methyl bromide		<10	<10	<10	<10	<10
bromoform		<10	<10	<10	<10	<10
dichlorobromomethane		<5	<5	<5	<5	<5
trichlorofluoromethane		<10	<10	<10	<10	<10
dichlorodifluoromethane		<10	<10	<10	<10	<10
chlorodibromomethane		<5	<5	<5	<5	<5
tetrachloroethylene		<5	<5	<5	<5	<5
toluene		<5	<5	<5	<5	<5
trichloroethylene		<5	<5	3.8	19	22
vinyl chloride		<10	<10	<10	<10	<10
acetone		<5	<5	<5	<5	<5
2-butanone		<5	<5	<5	<5	<5
carbon disulfide		<5	<5	<5	<5	<5
2-hexanone		<5	<5	<5	<5	<5
4-methyl-2-pentanone		<5	<5	<5	<5	<5
stryrene		<5	<5	<5	<5	<5
vinyl acetate		<5	<5	<5	<5	<5
total xylenes		<5	<5	<5	<5	<5

** - Indicates a blind replicate sample.

TABLE B-2. (CONTINUED/PAGE 3)

BASE/NEUTRAL COMPOUNDS	SAMPLING DATE:	ST-1 ====	ST-1 ====	ST-2 ====	ST-3 ====	ST-3 ====	ST-4 ====
acenaphthene		<10	<10	<10	<10	<10	<10
benzidine		<40	<40	<40	<40	<40	<40
1,2,4-trichlorobenzene		<10	<10	<10	<10	<10	<10
hexachlorobenzene		<10	<10	<10	<10	<10	<10
hexachloroethane		<10	<10	<10	<10	<10	<10
bis(2-chloroethyl)ether		<10	<10	<10	<10	<10	<10
2-chloronaphthalene		<10	<10	<10	<10	<10	<10
1,2-dichlorobenzene		8.0	36	<10	<10	190	<10
1,3-dichlorobenzene		<10	<10	<10	<10	<10	<10
1,4-dichlorobenzene		<10	<10	<10	<10	4.1	<10
3,3'-dichlorobenzidine		<20	<20	<20	<20	<20	<20
2,4-dinitrotoluene		<20	<20	<20	<20	<20	<20
2,6-dinitrotoluene		<20	<20	<20	<20	<20	<20
1,2-diphenylhydrazine (as azobenzene)		<20	<20	<20	<20	45	<20
fluoranthene		<10	<10	<10	<10	<10	<10
4-chlorophenyl phenyl ether		<10	<10	<10	<10	<10	<10
4-bromophenyl phenyl ether		<10	<10	<10	<10	<10	<10
bis (2-chloroisopropyl) ether		<20	<20	<20	<20	<20	<20
bis (2-chloroethoxy) methane		<20	<20	<20	<20	<20	<20
hexachlorobutadiene		<10	<10	<10	<10	<10	<10
hexachlorocyclopentadiene		<10	<10	<10	<10	<10	<10
isophorone		<10	<10	<10	<10	<10	<10
naphthalene		<10	<10	<10	<10	<10	<10
nitrobenzene		<10	<10	<10	<10	<10	<10
N-nitrosodiphenylamine		<10	<10	<10	<10	<10	<10
N-nitrosodi-n-propylamine		<10	<10	<10	<10	<10	<10
bis (2-ethylhexyl) phthalate		8.0	6.2	<10	<10	<10	<10
butyl benzyl phthalate		<10	<10	<10	<10	<10	<10
di-n-butyl phthalate		<10	<10	<10	<10	<10	<10
di-n-octyl phthalate		<10	<10	<10	<10	<10	<10
diethyl phthalate		<10	<10	<10	<10	<10	<10
dimethyl phthalate		<10	<10	<10	<10	<10	<10
benzo(a)anthracene		<10	<10	<10	<10	<10	<10
benzo(a)pyrene		<20	<20	<20	<20	<20	<20
3,4-benzofluoranthene		<20	<20	<20	<20	<20	<20
benzo(k)fluoranthene		<20	<20	<20	<20	<20	<20
chrysene		<20	<20	<20	<20	<20	<20
acenaphthylene		<10	<10	<10	<10	<10	<10
anthracene		<10	<10	<10	<10	<10	<10
benzo(ghi)perylene		<20	<20	<20	<20	<20	<20
fluorene		<10	<10	<10	<10	<10	<10
phenanthrene		<10	<10	<10	<10	<10	<10
dibenzo(a,h)anthracene		<20	<20	<20	<20	<20	<20
indeno(1,2,3-cd)pyrene		<20	<20	<20	<20	<20	<20
pyrene		<10	<10	<10	<10	<10	<10

** - Indicates a blind replicate sample.

TABLE B-2. (CONTINUED/PAGE 4)

BASE/NEUTRAL COMPOUNDS	SAMPLING DATE:	ST-5 ====	ST-6 ====	ST-6 ====	ST-7 ====	ST-8 ====
acenaphthene		<10	<10	<10	<10	<10
benzidine		<40	<40	<40	<40	<40
1,2,4-trichlorobenzene		<10	<10	<10	<10	<10
hexachlorobenzene		<10	<10	<10	<10	<10
hexachloroethane		<10	<10	<10	<10	<10
bis(2-chloroethyl)ether		<10	<10	<10	<10	<10
2-chloronaphthalene		<10	<10	<10	<10	<10
1,2-dichlorobenzene		<10	<10	<10	2.1	<10
1,3-dichlorobenzene		<10	<10	<10	<10	<10
1,4-dichlorobenzene		<10	<10	<10	<10	<10
3,3'-dichlorobenzidine		<20	<20	<20	<20	<20
2,4-dinitrotoluene		<20	<20	<20	<20	<20
2,6-dinitrotoluene		<20	<20	<20	<20	<20
1,2-diphenylhydrazine (as azobenzene)		<20	<20	<20	<20	<20
fluoranthene		<10	<10	<10	<10	<10
4-chlorophenyl phenyl ether		<10	<10	<10	<10	<10
4-bromophenyl phenyl ether		<10	<10	<10	<10	<10
bis (2-chloroisopropyl) ether		<20	<20	<20	<20	<20
bis (2-chloroethoxy) methane		<20	<20	<20	<20	<20
hexachlorobutadiene		<10	<10	<10	<10	<10
hexachlorocyclopentadiene		<10	<10	<10	<10	<10
isophorone		<10	<10	<10	<10	<10
naphthalene		<10	<10	<10	<10	<10
nitrobenzene		<10	<10	<10	<10	<10
N-nitrosodiphenylamine		<10	<10	<10	<10	<10
N-nitrosodi-n-propylamine		<10	<10	<10	<10	<10
bis (2-ethylhexyl) phthalate		<10	<10	<10	<10	5.7
butyl benzyl phthalate		<10	<10	<10	<10	<10
di-n-butyl phthalate		<10	<10	<10	<10	<10
di-n-octyl phthalate		<10	<10	<10	<10	<10
diethyl phthalate		<10	<10	<10	<10	<10
dimethyl phthalate		<10	<10	<10	<10	<10
benzo(a)anthracene		<10	<10	<10	<10	<10
benzo(a)pyrene		<20	<20	<20	<20	<20
3,4-benzofluoranthene		<20	<20	<20	<20	<20
benzo(k)fluoranthene		<20	<20	<20	<20	<20
chrysene		<20	<20	<20	<20	<20
acenaphthylene		<10	<10	<10	<10	<10
anthracene		<10	<10	<10	<10	<10
benzo(ghi)perylene		<20	<20	<20	<20	<20
fluorene		<10	<10	<10	<10	<10
phenanthrene		<10	<10	<10	<10	<10
dibenzo(a,h)anthracene		<20	<20	<20	<20	<20
indeno(1,2,3-cd)pyrene		<20	<20	<20	<20	<20
pyrene		<10	<10	<10	<10	<10

** - Indicates a blind replicate sample.

TABLE B-2. (CONTINUED/PAGE 5)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	ST-1 ====	ST-1 ====	ST-2 ====	ST-3 ====	ST-3 ====	ST-4 ====
		11/83	1/85	11/83	11/83	** 1/85	11/83
2,4,6-trichlorophenol		<10	NR	<10	<10	NR	<10
p-chloro-m-cresol		<10	NR	<10	<10	NR	<10
2-chlorophenol		<10	NR	<10	<10	NR	<10
2,4-dichlorophenol		<10	NR	<10	<10	NR	<10
2,4-dimethylphenol		<10	NR	<10	<10	NR	<10
2-nitrophenol		<20	NR	<20	<20	NR	<20
4-nitrophenol		<50	NR	<50	<50	NR	<50
2,4-dinitrophenol		<50	NR	<50	<50	NR	<50
2,6-dinitro-o-cresol		<20	NR	<20	<20	NR	<20
pentachlorophenol		<10	NR	<10	<10	NR	<10
phenol		<10	NR	<10	<10	NR	<10
		ST-5 ====	ST-6 ====	ST-6 ====	ST-7 ====		ST-8 ====
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	11/83	11/83	1/85	1/85	**	1/85
2,4,6-trichlorophenol		<10	<10	<10	NR	NR	NR
p-chloro-m-cresol		<10	<10	<10	NR	NR	NR
2-chlorophenol		<10	<10	<10	NR	NR	NR
2,4-dichlorophenol		<10	<10	<10	NR	NR	NR
2,4-dimethylphenol		<10	<10	<10	NR	NR	NR
2-nitrophenol		<20	<20	<20	NR	NR	NR
4-nitrophenol		<50	<50	<50	NR	NR	NR
2,4-dinitrophenol		<50	<50	<50	NR	NR	NR
2,6-dinitro-o-cresol		<20	<20	<20	NR	NR	NR
pentachlorophenol		<10	<10	<10	NR	NR	NR
phenol		<10	<10	<10	NR	NR	NR

** - Indicates a blind replicate sample.

TABLE B-2. (CONTINUED/PAGE 6)

	SAMPLING DATE:	ST-1	ST-2	ST-3	ST-4	ST-5	ST-6
NON-PRIORITY POLLUTANT HAZARDOUS COMPOUNDS		11/83	11/83	11/83	**	11/83	11/83
benzoic acid		<100	<100	<100	<100	<100	<100
2-methylphenol		<5	<5	<5	<5	<5	<5
4-methylphenol		<5	<5	<5	<5	<5	<5
2,4,5-trichlorophenol		<100	<100	<100	<100	<100	<100
aniline		<5	<5	<5	<5	<5	<5
benzyl alcohol		<20	<20	<20	<20	<20	<20
4-chloroaniline		<50	<50	<50	<50	<50	<50
dibenzofuran		<10	<10	<10	<10	<10	<10
2-methylnaphthalene		<20	<20	<20	<20	<20	<20
2-nitroaniline		<100	<100	<100	<100	<100	<100
3-nitroaniline		<100	<100	<100	<100	<100	<100
4-nitroaniline		<100	<100	<100	<100	<100	<100
		ST-1	ST-3	ST-6	ST-7	ST-8	
PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	1/85	1/85	1/85	1/85	**	1/85
aldrin		<10	<10	<10	<10	<10	<10
B-BHC		<10	<10	<10	<10	<10	<10
D-BHC		<10	<10	<10	<10	<10	<10
chlordane		<100	<100	<100	<100	<100	<100
4,4'-DDD		<10	<10	<10	<10	<10	<10
4,4'-DDE		<10	<10	<10	<10	<10	<10
4,4'-DDT		<10	<10	<10	<10	<10	<10
dieldrin		<10	<10	<10	<10	<10	<10
endosulfan sulfate		<20	<20	<20	<20	<20	<20
endrin aldehyde		<20	<20	<20	<20	<20	<20
heptachlor		<10	<10	<10	<10	<10	<10
heptachlor epoxide		<10	<10	<10	<10	<10	<10
PCB		<50	<50	<50	<50	<50	<50
toxaphene		<500	<500	<500	<500	<500	<500

** - Indicates a blind replicate sample.

TABLE B-2. (CONTINUED/PAGE 7)

OTHER CONSTITUENTS	SAMPLING DATE: =====	ST-1 ====	ST-1 ====	ST-2 ====	ST-3 ====	ST-3 ====	ST-4 ====
mercury as Hg (mg/L)		NA	<0.0005	NA	NA	NA <0.0005	NA
iron as Fe (mg/L)		NA	0.72	NA	NA	NA <0.05	NA
manganese as Mn (mg/L)		0.45	1.3	0.037	0.46	0.46 3.1	0.34
lead as Pb (mg/L)		0.12	0.024	0.090	0.096	0.07 0.048	0.080
chromium as Cr (mg/L)		<0.005	<0.02	0.005	<0.005	<0.005 <0.02	0.012
cadmium as Cd (mg/L)		0.004	0.001	0.008	0.004	0.003 0.002	0.002
cyanide as CN (mg/L)		<0.02	<0.02	<0.02	<0.02	0.02 0.03	<0.02
arsenic as As (mg/L)		<0.002	0.012	<0.002	<0.002	0.002 <0.002	<0.002
zinc as Zn (mg/L)		0.07	0.10	0.08	0.07	0.07 0.04	0.06
phenol as phenol (mg/L)		0.025	0.2	0.021	0.019	0.016 2.2	0.02
total organic carbon (mg/L)		NA	40	NA	NA	NA 48	NA
pH		5.7	NA	6.00	5.9	5.9 NA	6.00
specific cond. (umhos/cm)		3750	NA	4000	3800	4000 NA	5000

OTHER CONSTITUENTS	SAMPLING DATE: =====	ST-5 ====	ST-6 ====	ST-6 ====	ST-7 ====	ST-7 ====	ST-8 ====
mercury as Hg (mg/L)		NA	NA	<0.0005	<0.0005 <0.0005	<0.0005	<0.0005
iron as Fe (mg/L)		NA	NA	<0.05	0.15 0.14	0.15 0.09	0.09
manganese as Mn (mg/L)		0.24	0.24	0.90	2.8 2.8	2.8 0.52	0.52
lead as Pb (mg/L)		0.09	0.07	0.012	<0.005 0.015	0.015 0.018	0.018
chromium as Cr (mg/L)		<0.005	<0.005	<0.02	<0.02 <0.02	<0.02 <0.02	<0.02
cadmium as Cd (mg/L)		0.014	0.008	<0.001	<0.001 <0.001	<0.001 <0.001	<0.001
cyanide as CN (mg/L)		<0.02	<0.02	<0.02	<0.02 <0.02	<0.02 <0.02	<0.02
arsenic as As (mg/L)		<0.002	0.002	<0.002	<0.002 <0.002	<0.002 <0.002	<0.002
zinc as Zn (mg/L)		0.05	0.05	0.09	0.11 0.12	0.11 0.07	0.07
phenol as phenol (mg/L)		0.012	0.013	0.004	0.016 0.012	0.016 0.006	0.006
total organic carbon (mg/L)		NA	NA	61	30 25	30 50	50
pH		5.9	NA	NA	NA	NA	NA
specific cond. (umhos/cm)		4750	NA	NA	NA	NA	NA

** - Indicates a blind replicate sample.

NA - Not Analyzed

TABLE B-3. SUMMARY OF SOIL QUALITY DATA FOR UOP INC.'S PLANT SITE IN
EAST RUTHERFORD, NEW JERSEY

CHEMICAL CONCENTRATIONS (reported in micrograms/kilograms, except where noted)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	B-1	B-2		B-3		B-4	B-5	
		B-10'	4-6'	8-10'	0-2'	8-10'	9-11'	6-8'	8-10'
		11/83	11/83	11/83	11/83	11/83	11/83	11/83	11/83
acrolein		<200	<200	<200	<200	<200	<200	<200	<200
acrylonitrile		<200	<200	<200	<200	<200	<200	<200	<200
benzene		<200	<200	<200	940	<200	<200	<200	<200
carbon tetrachloride		<200	<200	<200	<200	<200	<200	<200	<200
chlorobenzene		<200	<200	<200	3400	<200	<200	<200	<200
1,2-dichloroethane		<200	<200	<200	<200	<200	<200	<200	<200
1,1,1-trichloroethane		<200	<200	<200	<200	<200	<200	<200	<200
1,1-dichloroethane		<200	<200	<200	<200	<200	<200	<200	<200
1,1,2-trichloroethane		<200	<200	<200	<200	<200	<200	<200	<200
1,1,2,2-tetrachloroethane		<200	<200	<200	<200	<200	<200	<200	<200
chloroethane		<200	<200	<200	<200	<200	<200	<200	<200
2-chloroethyl vinyl ether		<200	<200	<200	<200	<200	<200	<200	<200
chloroform		<200	<200	<200	<200	<200	<200	<200	<200
1,1-dichloroethylene		<200	<200	<200	<200	<200	<200	<200	<200
1,2-trans-dichloroethylene		<200	<200	<200	1800	<200	<200	<200	<200
1,2-dichloropropane		<200	<200	<200	<200	<200	<200	<200	<200
1,3-dichloropropylene		<200	<200	<200	<200	<200	<200	<200	<200
ethylbenzene		<200	<200	<200	2600	<200	<200	<200	<200
methylene chloride		<200	<200	<200	<200	33000	<200	<200	<200
methyl chloride		<200	<200	<200	<200	<200	<200	<200	<200
methyl bromide		<200	<200	<200	<200	<200	<200	<200	<200
bromoform		<200	<200	<200	<200	<200	<200	<200	<200
dichlorobromomethane		<200	<200	<200	<200	<200	<200	<200	<200
trichlorofluoromethane		<200	<200	<200	<200	<200	<200	<200	<200
dichlorodifluoromethane		<200	<200	<200	<200	<200	<200	<200	<200
chlorodibromomethane		<200	<200	<200	<200	<200	<200	<200	<200
tetrachloroethylene		<200	<200	<200	920	<200	<200	<200	<200
toluene		<200	<200	<200	16000	<200	<200	<200	<200
trichloroethylene		<200	<200	<200	280	<200	<200	<200	<200
vinyl chloride		<200	<200	<200	<200	<200	<200	<200	<200
acetone		<200	<200	<200	<200	<200	<200	<200	<200
2-butanone		<200	<200	<200	<200	<200	<200	<200	<200
carbon disulfide		<200	<200	550	<200	230	790	<200	<200
2-hexanone		<200	<200	<200	<200	<200	<200	<200	<200
4-methyl-2-pentanone		<200	<200	<200	<200	<200	<200	<200	<200
stryrene		<200	<200	<200	<200	<200	<200	<200	<200
vinyl acetate		<200	<200	<200	<200	<200	<200	<200	<200
total xylenes		<200	<200	<200	35000	<200	<200	<200	<200

TABLE B-3. (CONTINUED/PAGE 2)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	B-6		B-7	WELL 11	
		6-8'	8-10'	2-6'	8-10'	
acrolein		<200	<200	<200	<200	
acrylonitrile		<200	<200	<200	<200	
benzene		<200	<200	<200	<200	
carbon tetrachloride		<200	<200	<200	<200	
chlorobenzene		<200	<200	<200	<200	
1,2-dichloroethane		<200	<200	<200	<200	
1,1,1-trichloroethane		<200	<200	<200	<200	
1,1-dichloroethane		<200	<200	<200	<200	
1,1,2-trichloroethane		<200	<200	<200	<200	
1,1,2,2-tetrachloroethane		<200	<200	<200	<200	
chloroethane		<200	<200	<200	<200	
2-chloroethyl vinyl ether		<200	<200	<200	<200	
chloroform		<200	<200	<200	<200	
1,1-dichloroethylene		<200	<200	<200	<200	
1,2-trans-dichloroethylene		<200	<200	<200	<200	
1,2-dichloropropane		<200	<200	<200	<200	
1,3-dichloropropylene		<200	<200	<200	<200	
ethylbenzene		<200	<200	<200	<200	
methylene chloride		<200	<200	<200	<200	
methyl chloride		<200	<200	<200	<200	
methyl bromide		<200	<200	<200	<200	
bromoform		<200	<200	<200	<200	
dichlorobromomethane		<200	<200	<200	<200	
trichlorofluoromethane		<200	<200	<200	<200	
dichlorodifluoromethane		<200	<200	<200	<200	
chlorodibromomethane		<200	<200	<200	<200	
tetrachloroethylene		<200	<200	<200	<200	
toluene		<200	<200	<200	<200	
trichloroethylene		<200	<200	<200	<200	
vinyl chloride		<200	<200	<200	<200	
acetone		<200	<200	<200	<200	
2-butanone		<200	<200	<200	<200	
carbon disulfide		<200	240	120	260	
2-hexanone		<200	<200	<200	<200	
4-methyl-2-pentanone		<200	<200	<200	<200	
stryrene		<200	<200	<200	<200	
vinyl acetate		<200	<200	<200	<200	
total xylenes		<200	<200	<200	<200	

TABLE B-3. (CONTINUED/PAGE 3)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	WELL 12I		WELL 13I		WELL 14I		WELL 15I		WELL 16I	
		0-2'* unsat.		0-2'* sat.	0-5'# sat.	0-2'* unsat.		0-2'* unsat.	0-2'* unsat.		0-2'* unsat.
		11/84	11/84	11/84	11/84	11/84	11/84	11/84	11/84	11/84	11/84
chloromethane		<10		<5000	<5000	<10		<10		<10	
vinyl chloride		<10		<5000	<5000	<10		<10		<10	
chloroethane		<10		<5000	<5000	<10		<10		<10	
bromomethane		<10		<5000	<5000	<10		<10		<10	
acrolein		<100		<50000	<50000	<100		<100		<100	
acrylonitrile		<100		<50000	<50000	<100		<100		<100	
methylene chloride		<10		<5000	<5000	<10		100		<10	
trichlorofluoromethane		<10		<5000	<5000	<10		12		<10	
1,1-dichloroethylene		<10		<5000	<5000	<10		<10		<10	
1,1-dichloroethane		<10		<5000	<5000	<10		<10		<10	
trans-1,2-dichloroethylene		<10		<5000	<5000	<10		<10		<10	
chloroform		<10		<5000	<5000	<10		<10		<10	
1,2-dichloroethane		<10		<5000	<5000	<10		<10		<10	
1,1,1-trichloroethane		<10		<5000	<5000	<10		<10		<10	
carbon tetrachloride		<10		<5000	<5000	<10		<10		<10	
bromodichloromethane		<10		<5000	<5000	<10		<10		<10	
1,2-dichloropropane		<10		<5000	<5000	<10		<10		<10	
trans-1,3-dichloropropene		<10		<5000	<5000	<10		<10		<10	
trichloroethylene		<10		<5000	<5000	<10		<10		<10	
benzene		<10		10000	<5000	<10		<10		<10	
cis-1,3-dichloropropene		<10		<5000	<5000	<10		<10		<10	
1,1,2-trichloroethane		<10		<5000	<5000	<10		<10		<10	
dibromochloromethane		<10		<5000	<5000	<10		<10		<10	
bromoform		<10		<5000	<5000	<10		<10		<10	
1,1,2,2-tetrachloroethylene		<10		<5000	<5000	<10		<10		<10	
1,1,2,2-tetrachloroethane		<10		<5000	<5000	<10		<10		<10	
toluene		<10		15000	110000	<10		17		94	
chlorobenzene		<10		<5000	<5000	<10		<10		<10	
ethylbenzene		<10		<5000	<5000	<10		<10		<10	
2-chloroethyl vinyl ether		<10		<5000	<5000	<10		<10		<10	

- split spoon

- from auger

TABLE B-3. (CONTINUED/PAGE 4)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	WELL 17I	WELL 18I	WELL 19I	WELL 20I	WELL 21I
		0-2'* unsat.	0-2'* unsat.	0-2'* 10-15'*# unsat. sat.	0-2'* unsat.	0-2'* 0-5'*# unsat. sat.
		SAMPLING DATE:	11/84	11/84	11/84 11/84	11/84 11/84
chloromethane		<10	<10	<10 <10	<10	<10 <10
vinyl chloride		<10	<10	<10 <10	<10	<10 <10
chloroethane		<10	<10	<10 <10	<10	<10 <10
bromomethane		<10	<10	<10 <10	<10	<10 <10
acrolein		<100	<100	<100 <100	<100	<100 <100
acrylonitrile		<100	<100	<100 <100	<100	<100 <100
methylene chloride		<10	<10	<10 <10	<10	<10 86
trichlorofluoromethane		<10	<10	<10 <10	<10	<10 71
1,1-dichloroethylene		<10	<10	<10 <10	<10	<10 <10
1,1-dichloroethane		<10	<10	<10 <10	<10	<10 <10
trans-1,2-dichloroethylene		<10	<10	<10 <10	<10	<10 <10
chloroform		<10	<10	<10 <10	<10	<10 <10
1,2-dichloroethane		<10	<10	<10 <10	<10	<10 <10
1,1,1-trichloroethane		<10	<10	<10 <10	<10	<10 <10
carbon tetrachloride		<10	<10	<10 <10	<10	<10 <10
bromodichloromethane		<10	<10	<10 <10	<10	<10 <10
1,2-dichloropropane		<10	<10	<10 <10	<10	<10 <10
trans-1,3-dichloropropene		<10	<10	<10 <10	<10	<10 <10
trichloroethylene		<10	<10	<10 <10	<10	86 <10
benzene		<10	<10	<10 <10	<10	<10 510
cis-1,3-dichloropropene		<10	<10	<10 <10	<10	<10 <10
1,1,2-trichloroethane		<10	<10	<10 <10	<10	<10 <10
dibromochloromethane		<10	<10	<10 <10	<10	<10 <10
bromoform		<10	<10	<10 <10	<10	<10 <10
1,1,2,2-tetrachloroethylene		<10	<10	<10 <10	<10	<10 <10
1,1,2,2-tetrachloroethane		<10	<10	<10 <10	<10	450 <10
toluene		<10	<10	19 32	<10	<10 150
chlorobenzene		<10	<10	<10 <10	<10	<10 <10
ethylbenzene		<10	<10	<10 <10	<10	<10 16
2-chloroethyl vinyl ether		<10	<10	<10 <10	<10	<10 <10

* - split spoon

- from auger

TABLE B-3. (CONTINUED/PAGE 5)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	WELL 22I			WELL 23I			WELL 24I			WELL 25I		
		0-2'* 0-5'# 5-10'#			0-2'* 0-5'#			0-2'* 0-5'#			0-2'*		
		unsat.	sat.	sat.	sat.	sat.	sat.	unsat.	sat.	unsat.	unsat.	unsat.	unsat.
chloromethane		<10	<10	<10	<10	<1000		<10	<10		<10		
vinyl chloride		<10	<10	<10	<10	<1000		<10	<10		<10		
chloroethane		<10	<10	<10	<10	<1000		<10	<10		<10		
bromomethane		<10	<10	<10	<10	<1000		<10	<10		<10		
acrolein		<100	<100	<100	<100	<10000		<100	<100		<100		
acrylonitrile		<100	<100	<100	<100	<10000		<100	<100		<100		
methylene chloride		<10	68	10	<10	670		<10	<10		NDB		
trichlorofluoromethane		<10	<10	<10	11	<1000		<10	<10		<10		
1,1-dichloroethylene		<10	<10	<10	<10	<1000		<10	<10		<10		
1,1-dichloroethane		<10	<10	<10	<10	<1000		<10	<10		<10		
trans-1,2-dichloroethylene		<10	<10	<10	<10	<1000		<10	<10		<10		
chloroform		<10	<10	<10	<10	<1000		<10	<10		<10		
1,2-dichloroethane		<10	<10	<10	<10	<1000		<10	<10		<10		
1,1,1-trichloroethane		<10	<10	<10	<10	<1000		<10	<10		<10		
carbon tetrachloride		<10	<10	<10	<10	<1000		<10	<10		<10		
bromodichloromethane		<10	<10	<10	<10	<1000		<10	<10		<10		
1,2-dichloropropane		<10	<10	<10	<10	<1000		<10	<10		<10		
trans-1,3-dichloropropene		<10	<10	<10	<10	<1000		<10	<10		<10		
trichloroethylene		<10	<10	<10	<10	<1000		<10	<10		<10		
benzene		<10	<10	<10	<10	930		<10	<10		<10		
cis-1,3-dichloropropene		<10	<10	<10	<10	<1000		<10	<10		<10		
1,1,2-trichloroethane		<10	<10	<10	<10	<1000		<10	<10		<10		
dibromochloromethane		<10	<10	<10	<10	<1000		<10	<10		<10		
bromoform		<10	<10	<10	<10	<1000		<10	<10		<10		
1,1,2,2-tetrachloroethylene		<10	<10	<10	<10	<1000		<10	<10		<10		
1,1,2,2-tetrachloroethane		<10	<10	<10	<10	<1000		<10	<10		<10		
toluene		<10	17	<10	<10	100000		<10	<10		<10		
chlorobenzene		<10	<10	<10	<10	1700		<10	<10		<10		
ethylbenzene		<10	<10	<10	<10	<1000		<10	<10		<10		
2-chloroethyl vinyl ether		<10	<10	<10	<10	<1000		<10	<10		<10		

* - split spoon

- from auger

TABLE B-3. (CONTINUED/PAGE 6)

WELL 26I

=====

SAMPLE DEPTH	0-2'* unsat.
VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:
	11/84
=====	
chloromethane	<10
vinyl chloride	<10
chloroethane	<10
bromomethane	<10
acrolein	<100
acrylonitrile	<100
methylene chloride	<10
trichlorofluoromethane	<10
1,1-dichloroethylene	<10
1,1-dichloroethane	<10
trans-1,2-dichloroethylene	<10
chloroform	<10
1,2-dichloroethane	<10
1,1,1-trichloroethane	<10
carbon tetrachloride	<10
bromodichloromethane	<10
1,2-dichloropropane	<10
trans-1,3-dichloropropene	<10
trichloroethylene	<10
benzene	<10
cis-1,3-dichloropropene	<10
1,1,2-trichloroethane	<10
dibromochloromethane	<10
bromoform	<10
1,1,2,2-tetrachloroethylene	<10
1,1,2,2-tetrachloroethane	<10
toluene	19
chlorobenzene	<10
ethylbenzene	<10
2-chloroethyl vinyl ether	<10

* - split sample

TABLE B-3. (CONTINUED/PAGE 7)

TABLE B-3. (CONTINUED/PAGE 8)

TABLE B-3. (CONTINUED/PAGE 9)

BASE/NEUTRAL COMPOUNDS	SAMPLE DATE:	WELL 12I		WELL 13I		WELL 14I		WELL 15I		WELL 16I	
		SAMPLE DEPTH	0-2' * unsat.	0-2' * sat.	0-5' # sat.	0-2' * unsat.					
n-nitrosodimethylamine		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
bis(2-chloroethyl)ether		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
1,3-dichlorobenzene		<200	<4000	<200	220	<200	<200	<200	<2000	<2000	<2000
1,4-dichlorobenzene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
1,2-dichlorobenzene		<200	<4000	<200	1400	<200	<200	<200	<2000	<2000	<2000
bis (2-chloroisopropyl) ether		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
hexachloroethane		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
N-nitrosodi-n-propylamine		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
nitrobenzene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
isophorone		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
bis (2-chloroethoxy) methane		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
1,2,4-trichlorobenzene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
naphthalene		<200	<4000	<200	<200	<200	390	<200	<2000	<2000	<2000
hexachlorobutadiene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
hexachlorocyclopentadiene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
2-chloronaphthalene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
dimethyl phthalate		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
acenaphthylene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
2,6-dinitrotoluene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
acenaphthene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
2,4-dinitrotoluene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
diethyl phthalate		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
fluorene		<200	<4000	<200	<200	<200	260	<200	<2000	<2000	<2000
4-chlorophenyl phenyl ether		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
N-nitrosodiphenylamine		<200	<4000	610	<200	<200	<200	<200	<2000	<2000	<2000
1,2-diphenylhydrazine		(as azobenzene)	<200	<4000	<200	<200	<200	<200	<2000	<2000	<2000
4-bromophenyl phenyl ether		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
hexachlorobenzene		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
phenanthrene		<200	<4000	400	<200	1100	1200	<2000	<2000	<2000	<2000
anthracene		<200	<4000	<200	<200	220	240	<200	<2000	<2000	<2000
di-n-butyl phthalate		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
fluoranthene		<200	<4000	2200	<200	1100	1000	<200	<2000	<2000	<2000
benzidine		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
pyrene		<200	<4000	220	<200	1100	1000	<200	<2000	<2000	<2000
butyl benzyl phthalate		<200	<4000	<200	<200	<200	230	<200	<2000	<2000	<2000
benzo(a)anthracene		<200	<4000	<200	<200	480	530	<200	<2000	<2000	<2000
3,3'-dichlorobenzidine		<200	<4000	<200	<200	<200	460	530	<2000	<2000	<2000
chrysene		<200	<4000	<200	<200	<200	250	<200	<2000	<2000	<2000
bis (2-ethylhexyl) phthalate		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
di-n-octyl phthalate		<200	<4000	<200	<200	<200	<200	<200	<2000	<2000	<2000
benzo(b)fluoranthene		<200	<4000	<200	<200	310	280	<200	<2000	<2000	<2000
benzo(k)fluoranthene		<200	<4000	<200	<200	240	280	<200	<2000	<2000	<2000
benzo(a)pyrene		<200	<4000	<200	<200	280	280	<200	<2000	<2000	<2000
indeno(1,2,3-cd)pyrene		<500	<10000	<500	<500	<500	<500	<500	<5000	<5000	<5000
dibenzo(a,h)anthracene		<500	<10000	<500	<500	<500	<500	<500	<5000	<5000	<5000
benzo(ghi) perlylene		<500	<10000	<500	<500	<500	<500	<500	<5000	<5000	<5000

* - split spoon

- from auger

TABLE B-3. (CONTINUED/PAGE 10)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	WELL 17I	WELL 18I	WELL 19I	WELL 20I	WELL 21I
		0-2'* unsat.	0-2'* unsat.	0-2'* 10-15'*# unsat. sat.	0-2'* unsat.	0-2'* 0-5'*# unsat. sat.
n-nitrosodimethylamine		<200	<200	<200 <200	<200	<200 <50000
bis(2-chloroethyl)ether		<200	<200	<200 <200	<200	<200 <50000
1,3-dichlorobenzene		<200	<200	<200 <200	<200	<200 <50000
1,4-dichlorobenzene		<200	<200	<200 <200	<200	<200 <50000
1,2-dichlorobenzene		<200	<200	<200 <200	<200	<200 <50000
bis (2-chloroisopropyl) ether		<200	<200	<200 <200	<200	<200 <50000
hexachloroethane		<200	<200	<200 <200	<200	<200 <50000
N-nitrosodi-n-propylamine		<200	<200	<200 <200	<200	<200 <50000
nitrobenzene		<200	<200	<200 <200	<200	<200 <50000
isophorone		<200	<200	<200 <200	<200	<200 <50000
bis (2-chloroethoxy) methane		<200	<200	<200 <200	<200	<200 <50000
1,2,4-trichlorobenzene		<200	<200	<200 <200	<200	820 <50000
naphthalene		<200	<200	<200 <200	1600	<200 <50000
hexachlorobutadiene		<200	<200	<200 <200	<200	<200 <50000
hexachlorocyclopentadiene		<200	<200	<200 <200	<200	<200 <50000
2-chloronaphthalene		<200	<200	<200 <200	<200	<200 <50000
dimethyl phthalate		<200	<200	<200 <200	<200	<200 <50000
acenaphthylene		<200	<200	<200 <200	<200	<200 <50000
2,6-dinitrotoluene		<200	<200	<200 <200	<200	<200 <50000
acenaphthene		<200	<200	<200 <200	440	<200 <50000
2,4-dinitrotoluene		<200	<200	<200 <200	<200	<200 <50000
diethyl phthalate		<200	<200	<200 <200	<200	<200 <50000
fluorene		<200	<200	<200 <200	310	<200 <50000
4-chlorophenyl phenyl ether		<200	<200	<200 <200	<200	<200 <50000
N-nitrosodiphenylamine		<200	<200	<200 <200	<200	<200 <50000
1,2-diphenylhydrazine (as azobenzene)		<200	<200	<200 <200	<200	<200 <50000
4-bromophenyl phenyl ether		<200	<200	<200 <200	<200	<200 <50000
hexachlorobenzene		<200	<200	<200 <200	<200	<200 <50000
phenanthrene		520	<200	<200 <200	330	<200 <50000
anthracene		<200	<200	<200 <200	<200	<200 <50000
di-n-butyl phthalate		<200	<200	<200 <200	<200	<200 <50000
fluoranthene		1100	<200	<200 <200	<200	<200 <50000
benzidine		<200	<200	<200 <200	<200	<200 <50000
pyrene		1000	<200	<200 <200	<200	<200 <50000
butyl benzyl phthalate		230	<200	<200 <200	<200	<200 <50000
benzo(a)anthracene		510	<200	<200 <200	<200	<200 <50000
3,3'-dichlorobenzidine		<200	<200	<200 <200	<200	<200 <50000
chrysene		480	<200	<200 <200	<200	<200 <50000
bis (2-ethylhexyl) phthalate		<200	<200	<200 <200	<200	<200 <50000
di-n-octyl phthalate		<200	<200	<200 <200	<200	<200 <50000
benzo(b)fluoranthene		320	<200	<200 <200	<200	<200 <50000
benzo(k)fluoranthene		390	<200	<200 <200	<200	<200 <50000
benzo(a)pyrene		320	<200	<200 <200	<200	<200 <50000
indeno(1,2,3-cd)pyrene		<500	<500	<500 <500	<500	<500 <125000
dibenzo(a,h)anthracene		<500	<500	<500 <500	<500	<500 <125000
benzo(ghi) perylene		<500	<500	<500 <500	<500	<500 <125000

* - split spoon

- from auger

TABLE B-3. (CONTINUED/PAGE 11)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH SAMPLING DATE:	WELL 22I			WELL 23I			WELL 24I			WELL 25I		
		0-2'* unsat.			0-5'*# sat.			0-2'* unsat.			0-5'*# sat.		
		0-5'# sat.	5-10'*# sat.		sat.		sat.	sat.		sat.	sat.		
n-nitrosodimethylamine		<200	<200	<200		<200	<200		<200	<200		<200	
bis(2-chloroethyl)ether		<200	<200	<200		<200	<200		<200	<200		<200	
1,3-dichlorobenzene		<200	<200	<200		<200	930		<200	340		<200	
1,4-dichlorobenzene		<200	<200	<200		<200	930		<200	760		<200	
1,2-dichlorobenzene		<200	<200	1800		<200	340		<200	4200		520	
bis (2-chloroisopropyl) ether		<200	<200	<200		<200	<200		<200	<200		<200	
hexachloroethane		<200	<200	<200		<200	<200		<200	<200		<200	
N-nitrosodi-n-propylamine		<200	<200	<200		<200	<200		<200	<200		<200	
nitrobenzene		<200	<200	<200		<200	<200		<200	<200		<200	
isophorone		<200	<200	<200		3100	<200		<200	<200		<200	
bis (2-chloroethoxy) methane		<200	<200	<200		<200	<200		<200	<200		<200	
1,2,4-trichlorobenzene		<200	<200	<200		<200	<200		<200	<200		<200	
naphthalene		<200	<200	<200		<200	<200		<200	<200		<200	
hexachlorobutadiene		<200	<200	<200		<200	<200		<200	<200		<200	
hexachlorocyclopentadiene		<200	<200	<200		<200	<200		<200	<200		<200	
2-chloronaphthalene		<200	<200	<200		<200	<200		<200	<200		<200	
dimethyl phthalate		<200	<200	<200		<200	<200		<200	<200		<200	
acenaphthylene		<200	<200	<200		<200	<200		<200	<200		<200	
2,6-dinitrotoluene		<200	<200	<200		<200	<200		<200	<200		<200	
acenaphthene		<200	<200	<200		<200	<200		<200	340		<200	
2,4-dinitrotoluene		<200	<200	<200		<200	<200		<200	<200		<200	
diethyl phthalate		<200	<200	<200		<200	<200		<200	<200		<200	
fluorene		<200	<200	<200		<200	<200		<200	<200		<200	
4-chlorophenyl phenyl ether		<200	<200	<200		<200	<200		<200	<200		<200	
N-nitrosodiphenylamine		<200	<200	<200		<200	<200		<200	<200		<200	
1,2-diphenylhydrazine													
(as azobenzene)		<200	<200	<200		<200	<200		<200	<200		<200	
4-bromophenyl phenyl ether		<200	<200	<200		<200	<200		<200	<200		<200	
hexachlorobenzene		<200	<200	<200		<200	<200		<200	<200		<200	
phenanthrene		<200	<200	<200		240	<200		540	2800		<200	
anthracene		<200	<200	<200		<200	<200		<200	460		<200	
di-n-butyl phthalate		<200	<200	<200		<200	<200		<200	<200		<200	
fluoranthene		<200	<200	<200		380	<200		890	1500		710	
benzidine		<200	<200	<200		<200	<200		<200	<200		<200	
pyrene		<200	<200	<200		370	<200		790	1500		620	
butyl benzyl phthalate		<200	<200	<200		<200	<200		<200	<200		<200	
benzo(a)anthracene		<200	<200	<200		240	<200		390	520		380	
3,3'-dichlorobenzidine		<200	<200	<200		<200	<200		<200	<200		<200	
chrysene		<200	<200	<200		290	<200		380	580		360	
bis (2-ethylhexyl) phthalate		<200	<200	690		<200	<200		<200	<200		390	
di-n-octyl phthalate		<200	<200	<200		<200	<200		<200	<200		<200	
benzo(b)fluoranthene		<200	<200	<200		330	<200		210	880		500	
benzo(k)fluoranthene		<200	<200	<200		250	<200		220	880		360	
benzo(a)pyrene		<200	<200	<200		300	<200		<200	540		490	
indeno(1,2,3-cd)pyrene		<500	<500	<500		<500	<500		<500	<500		<500	
dibenzo(a,h)anthracene		<500	<500	<500		<500	<500		<500	<500		<500	
benzo(ghi) perlylene		<500	<500	<500		<500	<500		<500	<500		<500	

* - split spoon

- from auger

TABLE B-3. (CONTINUED/PAGE 12)

		WELL 26I
		=====
BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	0-2'* unsat.
	SAMPLING DATE:	11/84
=====		=====
n-nitrosodimethylamine		<200
bis(2-chloroethyl)ether		<200
1,3-dichlorobenzene		<200
1,4-dichlorobenzene		<200
1,2-dichlorobenzene		<200
bis (2-chloroisopropyl) ether		<200
hexachloroethane		<200
N-nitrosodi-n-propylamine		<200
nitrobenzene		<200
isophorone		<200
bis (2-chloroethoxy) methane		<200
1,2,4-trichlorobenzene		<200
naphthalene		<200
hexachlorobutadiene		<200
hexachlorocyclopentadiene		<200
2-chloronaphthalene		<200
dimethyl phthalate		<200
acenaphthylene		<200
2,6-dinitrotoluene		<200
acenaphthene		<200
2,4-dinitrotoluene		<200
diethyl phthalate		<200
fluorene		<200
4-chlorophenyl phenyl ether		<200
N-nitrosodiphenylamine		<200
1,2-diphenylhydrazine		
(as azobenzene)		<200
4-bromophenyl phenyl ether		<200
hexachlorobenzene		<200
phenanthrene		<200
anthracene		<200
di-n-butyl phthalate		<200
fluoranthene		<200
benzidine		<200
pyrene		<200
butyl benzyl phthalate		<200
benzo(a)anthracene		<200
3,3'-dichlorobenzidine		<200
chrysene		<200
bis (2-ethylhexyl) phthalate		220
di-n-octyl phthalate		<200
benzo(b)fluoranthene		<200
benzo(k)fluoranthene		<200
benzo(a)pyrene		<200
indeno(1,2,3-cd)pyrene		<500
dibenzo(a,h)anthracene		<500
benzo(ghi) perylene		<500

* - split spoon

TABLE B-3. (CONTINUED/PAGE 13)

ACID EXTRACTABLE COMPOUNDS	SAMPLE DEPTH	B-1		B-2		B-3		B-4		
		8-10'	4-6'	8-10'	0-2'	8-10'	9-11'			
2,4,6-trichlorophenol		<200		<200	<200	<200	<200	<200		
p-chloro-m-cresol		<200		<200	<200	<200	<200	<200		
2-chlorophenol		<200		<200	<200	<200	<200	<200		
2,4-dichlorophenol		<200		<200	<200	<200	<200	<200		
2,4-dimethylphenol		<200		<200	<200	<200	<200	<200		
2-nitrophenol		<200		<200	<200	<200	<200	<200		
4-nitrophenol		<200		<200	<200	<200	<200	<200		
2,4-dinitrophenol		<200		<200	<200	<200	<200	<200		
2,6-dinitro-o-cresol		<200		<200	<200	<200	<200	<200		
pentachlorophenol		<200		<200	<200	<200	<200	<200		
phenol		<200		<200	<200	3400	<200	<200		
			B-5		B-6		B-7		WELL 11	
	SAMPLE DEPTH	6-8'	8-10'		6-8'	8-10'		2-6'		8-10'
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	11/83	11/83		11/83	11/83		11/83		
2,4,6-trichlorophenol		<200	<200		<200	<200		<200		<200
p-chloro-m-cresol		<200	<200		<200	<200		<200		<200
2-chlorophenol		<200	<200		<200	<200		<200		<200
2,4-dichlorophenol		<200	<200		<200	<200		<200		<200
2,4-dimethylphenol		<200	<200		<200	<200		<200		<200
2-nitrophenol		<200	<200		<200	<200		<200		<200
4-nitrophenol		<200	<200		<200	<200		<200		<200
2,4-dinitrophenol		<200	<200		<200	<200		<200		<200
2,6-dinitro-o-cresol		<200	<200		<200	<200		<200		<200
pentachlorophenol		<200	<200		<200	<200		<200		<200
phenol		<200	<200		<200	<200		<200		<200

TABLE B-3. (CONTINUED/PAGE 14)

TABLE B-3. (CONTINUED/PAGE 15)

	SAMPLE DEPTH	B-1		B-2		B-3		B-4	
		8-10'		4-6'	8-10'	0-2'	8-10'		9-11'
OTHER CONSTITUENTS	SAMPLING DATE:	11/83		11/83	11/83	11/83	11/83	11/83	11/83
phenol as phenol (mg/kgm)		0.001		0.001	0.001	0.069	0.001	0.001	
arsenic as As (mg/kgm)		0.049		0.58	1.3	63	0.60	1.8	
chromium as Cr (mg/kgm)		10		26	850	5200	26	5.6	
cyanide as CN (mg/kgm)		0.3		0.3	0.3	110	0.3	0.3	
lead as Pb (mg/kgm)		4.3		7.1	13	68	2.0	2.9	
manganese as Mn (mg/kgm)		5		380	650	20,000	22	45	
zinc as Zn (mg/kgm)		20		32	50	72	20	21	
cadmium as Cd (mg/kgm)		0.011		0.088	0.060	0.24	0.013	0.013	

	SAMPLE DEPTH	B-5		B-6		B-7		WELL 11	
		6-8'	8-10'	6-8'	8-10'	2-6'		8-10'	
OTHER CONSTITUENTS	SAMPLING DATE:	11/83	11/83	11/83	11/83	11/83		11/83	
phenol as phenol (mg/kgm)		0.002	0.001	0.002	0.001	0.001		0.001	
arsenic as As (mg/kgm)		0.88	1.4	1.4	1.0	9.3		1.9	
chromium as Cr (mg/kgm)		8.4	12	5.5	8	13		3.6	
cyanide as CN (mg/kgm)		0.3	0.3	0.3	0.3	0.3		0.3	
lead as Pb (mg/kgm)		5.5	4.5	25	7	19		1.0	
manganese as Mn (mg/kgm)		82	90	80	92	44		50	
zinc as Zn (mg/kgm)		19	25	22	26	46		11	
cadmium as Cd (mg/kgm)		0.028	0.088	0.092	0.013	0.044		0.009	

TABLE B-3. (CONTINUED/PAGE 16)

		WELL 12I	WELL 13I		WELL 14I	WELL 15I	WELL 16I
	SAMPLE DEPTH	0-2'* unsat.	0-2'* sat.	0-5'# sat.	0-2'* unsat.	0-2'* unsat.	0-2'* unsat.
OTHER CONSTITUENTS	SAMPLING DATE:	11/84	11/84	11/84	11/84	11/84	11/84
arsenic as As (mg/L)		5.0	***	3.7	5.5	3.8	3.3
cadmium as Cd (mg/L)		2.2	<0.55	<0.83	<0.67	1.0	<0.62
chromium total (mg/L)		26	71	68	20	18	49
cyanides total (mg/L)		<.23	0.38	0.39	<.24	0.26	0.25
lead as Pb (mg/L)		78	66	24	33	29	330
manganese as Mn (mg/L)		390	1600	180	230	320	210
pH		9.55	7.32	7.03	7.83	8.63	8.61
phenol as phenol (mg/L)		4.2	142	197	<1	9.2	<1
zinc as Zn (mg/L)		.72	200	52	120	90	520

		WELL 17I	WELL 18I	WELL 19I		WELL 20I	WELL 21I
	SAMPLE DEPTH	0-2'* unsat.	0-2'* unsat.	0-2'* unsat.	10-15'# sat.	0-2'* unsat.	0-2'* 0-5'# unsat. sat.
OTHER CONSTITUENTS	SAMPLING DATE:	11/84	11/84	11/84	11/84	11/84	11/84 11/84
arsenic as As (mg/L)		1.3	3.2	2.7	6.8	2.3	8.4 ***
cadmium as Cd (mg/L)		0.59	0.54	<0.71	<0.73	2.8	1.3 2.2
chromium total (mg/L)		38	82	41	27	104	48 120
cyanides total (mg/L)		<.25	0.33	<.21	<.21	0.26	0.86 2.4
lead as Pb (mg/L)		35	51	140	5.9	52	700 220
manganese as Mn (mg/L)		650	390	470	590	430	350 260
pH		9.09	7.09	7.38	7.90	8.69	8.42 ***
phenol as phenol (mg/L)		<1	<1	<1	<1	1	368 484
zinc as Zn (mg/L)		82	60	49	58	96	480 270

* - split spoon

- from auger

*** - Insufficient sample.

TABLE B-3. (CONTINUED/PAGE 17)

OTHER CONSTITUENTS	SAMPLING DATE:	WELL 22I			WELL 23I			WELL 24I			WELL 25I	
		SAMPLE DEPTH			0-2'*	0-5'*	5-10'*	0-2'*	0-5'*	sat.	0-2'*	0-5'*
		unsat.	sat.	sat.	sat.	sat.	sat.	unsat.	sat.	sat.	unsat.	sat.
arsenic as As (mg/L)		<3	<4	1.8		<4	<3		<4	1.7		5.8
cadmium as Cd (mg/L)		<0.71	<0.79	<0.60		<0.63	0.90		1.4	0.32		<0.75
chromium total (mg/L)		59	54	710		300	22		36	89		82
cyanides total (mg/L)		0.50	<.18	0.48		1.31	0.86		<.25	0.41		0.39
lead as Pb (mg/L)		60	120	30		82	9.0		13	15		170
manganese as Mn (mg/L)		340	350	330		1700	38		340	240		630
pH		7.15	7.81	3.83		8.65	8.05		8.05	6.45		***
phenol as phenol (mg/L)		1.6	1.6	2.5		<1	30		1	15		6.8
zinc as Zn (mg/L)		60	32	140		53	5.7		71	79		160

WELL 26I	
SAMPLE DEPTH	0-2'* unsat.
OTHER CONSTITUENTS	SAMPLING DATE:
	11/84
arsenic as As (mg/L)	<4
cadmium as Cd (mg/L)	<0.63
chromium total (mg/L)	16
cyanides total (mg/L)	<.22
lead as Pb (mg/L)	63
manganese as Mn (mg/L)	370
pH	5.57
phenol as phenol (mg/L)	<1
zinc as Zn (mg/L)	37

* - split spoon

- from auger

*** - Insufficient sample.

TABLE B-4. SUMMARY OF SEDIMENT QUALITY DATA FOR UOP INC.'S PLANT SITE
IN EAST RUTHERFORD, NEW JERSEY

CHEMICAL CONCENTRATIONS (reported in micrograms/kilogram)

BASE/NEUTRAL COMPOUNDS	SAMPLING DATE: =====	SS1 ====	SS2 ====	SS2 ====	SS3 ====	SS4 ====	SS5 ====
acenaphthene		<20000	<500	<200	<500	<20000	<50
benzidine		<20000	<500	<800	<500	<20000	<50
1,2,4-trichlorobenzene		25000	<500	<200	<500	<20000	<50
hexachlorobenzene		<20000	<500	<200	<500	<20000	<50
hexachloroethane		<20000	<500	<200	<500	<20000	<50
bis(2-chloroethyl)ether		<20000	<500	<200	<500	<20000	<50
2-chloronaphthalene		<20000	<500	<200	<500	<20000	<50
1,2-dichlorobenzene		38000	900	230	1500	11000	150
1,3-dichlorobenzene		14000	<500	<200	<500	<20000	<50
1,4-dichlorobenzene		29000	<500	<200	<500	<20000	<50
3,3'-dichlorobenzidine		<20000	<500	<400	<500	<20000	<50
2,4-dinitrotoluene		<20000	<500	<400	<500	<20000	<50
2,6-dinitrotoluene		<20000	<500	<400	<500	<20000	<50
1,2-diphenylhydrazine (as azobenzene)		<20000	<500	2200	<500	<20000	<50
fluoranthene		<20000	1000	180	500	<20000	160
4-chlorophenyl phenyl ether		<20000	<500	<200	<500	<20000	<50
4-bromophenyl phenyl ether		<20000	<500	<200	<500	<20000	<50
bis (2-chloroisopropyl) ether		<20000	<500	<400	<500	<20000	<50
bis (2-chloroethoxy) methane		<20000	<500	<400	<500	<20000	<50
hexachlorobutadiene		<20000	<500	<200	<500	<20000	<50
hexachlorocyclopentadiene		<20000	<500	<200	<500	<20000	<50
isophorone		<20000	<500	<200	<500	<20000	<50
naphthalene		<20000	<500	<200	<500	<20000	<50
nitrobenzene		<20000	<500	<200	<500	<20000	<50
N-nitrosodiphenylamine		<20000	2000	<200	<500	<20000	<50
N-nitrosodi-n-propylamine		<20000	<500	<200	<500	<20000	<50
bis (2-ethylhexyl) phthalate		<20000	10000	9500	16000	<20000	1800
butyl benzyl phthalate		<20000	<500	<200	<500	<20000	<50
di-n-butyl phthalate		<20000	<500	<200	<500	<20000	70
di-n-octyl phthalate		<20000	<500	<200	<500	<20000	<50
diethyl phthalate		<20000	<500	<200	<500	<20000	<50
dimethyl phthalate		<20000	<500	<200	<500	<20000	<50
benzo(a)anthracene		<20000	600	110	<500	<20000	100
benzo(a)pyrene		<20000	500	91	500	<20000	110
3,4-benzo fluoranthene		<20000	700	82	500	<20000	220
benzo(k)fluoranthene		<20000	700	82	500	<20000	220
chrysene		<20000	600	150	600	<20000	120
acenaphthylene		<20000	<500	<200	<500	<20000	<50
anthracene		<20000	600	<200	<500	<20000	<50
benzo(ghi)perylene		<20000	<500	<400	<500	<20000	60
fluorene		<20000	<500	<200	<500	<20000	<50
phenanthrene		<20000	600	<200	<500	<20000	100
dibenzo(a,h)anthracene		<20000	<500	<400	<500	<20000	<50
indeno(1,2,3-cd)pyrene		<20000	<500	<400	<500	<20000	60
pyrene		<20000	1100	130	600	<20000	180

TABLE B-4. (CONTINUED PAGE 2)

BASE/NEUTRAL COMPOUNDS	SAMPLING DATE:	S86 ---	S87 ---	S88 ---	S89 ---	S810 -----	S811 -----
acenaphthene		<100000	<2000	<200	400	<200	<200
benzidine		<400000	<800	<800	<800	<800	<800
1,2,4-trichlorobenzene		<100000	<2000	<200	<200	<200	<200
hexachlorobenzene		<100000	<2000	<200	<200	<200	<200
hexachloroethane		<100000	<2000	<200	<200	<200	<200
bis(2-chloroethyl)ether		<100000	<2000	<200	<200	<200	<200
2-chloronaphthalene		<100000	<2000	<200	<200	<200	<200
1,2-dichlorobenzene		1600000	1600	130	<200	<200	<200
1,3-dichlorobenzene		<100000	<2000	590	<200	<200	<200
1,4-dichlorobenzene		<100000	<2000	750	2400	<200	<200
3,3'-dichlorobenzidine		<200000	<4000	<400	<400	<400	<400
2,4-dinitrotoluene		<200000	<4000	<400	<400	<400	<400
2,6-dinitrotoluene		<200000	<4000	<400	<400	<400	<400
1,2-diphenylhydrazine (as azobenzene)		<200000	<4000	7800	6500	<400	<400
fluoranthene		<100000	2400	<200	<200	160	220
4-chlorophenyl phenyl ether		<100000	<2000	<200	<200	<200	<200
4-bromophenyl phenyl ether		<100000	<2000	<200	<200	<200	<200
bis (2-chloroisopropyl) ether		<200000	<4000	<400	<400	<400	<400
bis (2-chloroethoxy) methane		<200000	<4000	<400	<400	<400	<400
hexachlorobutadiene		<100000	<2000	<200	<200	<200	<200
hexachlorocyclopentadiene		<100000	<2000	<200	<200	<200	<200
isophorone		<100000	<2000	<200	<200	<200	<200
naphthalene		<100000	<2000	<200	<200	<200	<200
nitrobenzene		<100000	<2000	<200	<200	<200	<200
N-nitrosodiphenylamine		<100000	<2000	<200	<200	<200	<200
N-nitrosodi-n-propylamine		<100000	<2000	<200	<200	<200	<200
bis (2-ethylhexyl) phthalate		<100000	22000	3500	3800	1000	6300
butyl benzyl phthalate		<100000	<2000	<200	<200	<200	<200
di-n-butyl phthalate		<100000	<2000	<200	<200	<200	<200
di-n-octyl phthalate		<100000	<2000	<200	<200	<200	<200
diethyl phthalate		<100000	<2000	<200	<200	<200	<200
dimethyl phthalate		<100000	<2000	<200	<200	<200	<200
benzo(a)anthracene		<100000	<2000	160	4000	100	<200
benzo(a)pyrene		<200000	<4000	120	5300	120	<400
3,4-benzofluoranthene		<200000	<4000	210	6000	200	<400
benzo(k)fluoranthene		<200000	<4000	210	6000	200	<400
chrysene		<200000	<4000	110	2800	100	<400
acenaphthylene		<100000	<2000	<200	1100	<200	<200
anthracene		<100000	<2000	170	180	<200	<200
benzo(ghi)perylene		<200000	<4000	<400	<400	<400	<400
fluorene		<100000	<2000	<200	1100	<200	<200
phenanthrene		<100000	1300	<200	5800	<200	<200
dibenzo(a,h)anthracene		<200000	<4000	<400	<400	<400	<400
indeno(1,2,3-cd)pyrene		<200000	<4000	<400	<400	<400	<400
pyrene		<100000	2200	<200	<200	120	<200

TABLE B-4. (CONTINUED PAGE 3)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	SS2 ====	SS6 ====	SS7 ====	SS8 ====	SS9 ====	SS10 =====
2,4,6-trichlorophenol		<200	<100000	<2000	<200	<200	<200
p-chloro-m-cresol		<200	<100000	<2000	<200	<200	<200
2-chlorophenol		<200	<100000	<2000	<200	<200	<200
2,4-dichlorophenol		<200	<100000	<2000	<200	<200	<200
2,4-dimethylphenol		<200	<100000	<2000	<200	<200	<200
2-nitrophenol		<400	<200000	<4000	<400	<400	<400
4-nitrophenol		<1000	<500000	<10000	<1000	<1000	<1000
2,4-dinitrophenol		<1000	<500000	<10000	<1000	<1000	<1000
4,6-dinitro-o-cresol		<400	<200000	<4000	<400	<400	<400
pentachlorophenol		<200	<100000	<2000	<200	<200	<200
phenol		<200	<100000	<2000	100	<200	<200

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	SS11 =====
2,4,6-trichlorophenol		<200
p-chloro-m-cresol		<200
2-chlorophenol		<200
2,4-dichlorophenol		<200
2,4-dimethylphenol		<200
2-nitrophenol		<400
4-nitrophenol		<1000
2,4-dinitrophenol		<1000
4,6-dinitro-o-cresol		<400
pentachlorophenol		<200
phenol		<200

TABLE B-4. (CONTINUED PAGE 4)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	SS2 ---	SS6 ---	SS7 ---	SS8 ---	SS9 ---	SS10 ----
		1/85	1/85	1/85	1/85	1/85	1/85
aldrin		<500	<250000	<5000	<500	<500	<500
B-BHC		<500	<250000	<5000	<500	<500	<500
D-BHC		<500	<250000	<5000	<500	<500	<500
chlordane		<5000	<2500000	<50000	<5000	<5000	<5000
4,4'-DDD		<500	<250000	<5000	<500	<500	<500
4,4'-DDE		<500	<250000	<5000	<500	<500	<500
4,4'-DDT		<500	<250000	<5000	<500	<500	<500
dieldrin		<500	<250000	<5000	<500	<500	<500
endosulfan sulfate		<1000	<500000	<10000	<1000	<1000	<1000
endrin aldehyde		<1000	<500000	<10000	<1000	<1000	<1000
heptachlor		<500	<250000	<5000	<500	<500	<500
heptachlor epoxide		<500	<250000	<5000	<500	<500	<500
PCB		230000	<2500000	<5000	160000	300000	13000
toxaphene		<10000	<5000000	<100000	<10000	<10000	<10000

SS11

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	1/85
aldrin		<500
B-BHC		<500
D-BHC		<500
chlordane		<5000
4,4'-DDD		<500
4,4'-DDE		<500
4,4'-DDT		<500
dieldrin		<500
endosulfan sulfate		<1000
endrin aldehyde		<1000
heptachlor		<500
heptachlor epoxide		<500
PCB		<5000
toxaphene		<10000

TABLE B-4. (CONTINUED PAGE 5)

OTHER CONSTITUENTS	SAMPLING DATE:	SS1 ---	SS2 ---	SS3 ---	SS4 ---	SS5 ---
phenol as phenol (mg/kgm)		17	1.6	0.8	0.9	0.1
arsenic as As (mg/kgm)		12	20	1.9	4.4	1.8
chromium as Cr (mg/kgm)		660	4000	160	130	7.8
cyanide as CN (mg/kgm)		5.9	11	<0.02	<0.02	<0.02
lead as Pb (mg/kgm)		88	80	25	25	3.8
manganese as Mn (mg/kgm)		3200	1600	360	110	10
zinc as Zn (mg/kgm)		300	580	145	53	20
cadmium as Cd (mg/kgm)		0.64	2.4	1.3	0.2	0.088
OTHER CONSTITUENTS	SAMPLING DATE:	SS2 ---	SS6 ---	SS7 ---	SS8 ---	SS9 ---
mercury as Hg (mg/kgm)		40	5.2	20	6.7	23
iron as Fe (mg/kgm)		4400	2600	3600	4000	7500
manganese as Mn (mg/kgm)		1800	63	3800	13000	1200
lead as Pb (mg/kgm)		90	50	130	75	90
chromium as Cr (mg/kgm)		4100	140	480	5200	220
cadmium as Cd (mg/kgm)		2.7	1.0	2.1	1.2	1.0
cyanide as CN (mg/kgm)		0.17	2.5	<0.3	<0.3	<0.3
arsenic as As (mg/kgm)		50	3.8	19	29	4.0
zinc as Zn (mg/kgm)		430	29	250	210	120
phenol as phenol (mg/kgm)		1.3	38	2.7	1.0	1.7
						<0.5
		SS10 -----				

TABLE B-4. (CONTINUED PAGE 6)

OTHER CONSTITUENTS	SAMPLING DATE:	SS11 =====
phenol as phenol (mg/kgm)		0.1
Total Organic Carbon		--
mercury as Hg (mg/kgm)		8.1
iron as Fe (mg/kgm)		1300
manganese as Mn (mg/kgm)		74
lead as Pb (mg/kgm)		56
chromium as Cr (mg/kgm)		100
cadmium as Cd (mg/kgm)		4.3
cyanide as CN (mg/kgm)		<0.33
arsenic as As (mg/kgm)		1.9
zinc as Zn (mg/kgm)		230

CHAIN OF CUSTODY DOCUMENTATION

Sample Shipment No.

695-001-12054

	Date	Time	Signature	Company
Relinquished:	<u>12/5/84</u>	<u>1800</u>	<u>B. Carpenter</u>	<u>GFM</u>
Received:	<u>12/5/84</u>	<u>1800</u>	<u>E. Weeth</u>	<u>GFM</u>
Relinquished:	<u>12/6/84</u>	<u>1000</u>	<u>E. Weeth</u>	<u>GFM</u>
Received:	<u>12/6/84</u>	<u>1000</u>	<u>J. zinc Enonymy</u>	<u>GFM</u>
Relinquished:	<u>12/6/84</u>	<u>1045</u>	<u>C. zinc Enonymy</u>	<u>GFM</u>
Received:	<u>12/6/84</u>	<u>1045</u>	<u>C. zinc Enonymy</u>	<u>TSC</u>
Relinquished:	_____	_____	_____	_____
Received:	_____	_____	_____	_____
Relinquished:	_____	_____	_____	_____
Received:	_____	_____	_____	_____
Relinquished:	_____	_____	_____	_____
Received:	_____	_____	_____	_____

SAMPLE SHIPMENT # 605-009 Page 2 of 2

GERAGHTY & MILLER INC. - 1264

ANALYSIS

CHAIN OF CUSTODY

DATE	SAMPLE IDENTITY	* OF CONTAINERS	1	2	3	4	5	6	7	8
12-6-84	WELL 20I	6	✓	✓	✓	✓				X
12-6-84	WELL 18I	6	✓	✓	✓	✓				X
12-6-84	WELL 30I	6	✓	✓	✓	✓				X
12-6-84	WELL 14I	6	✓	✓	✓	✓				X
12-6-84	WELL 17I	6	✓	✓	✓	✓				X
12-6-84	WELL 32I	10	✓	✓	✓	✓				X
12-6-84	WELL 24I	6	✓	✓	✓	✓				X
12-6-84	WELL 25I	7	✓	✓	✓	✓				X
12-6-84	WELL 22I	6	✓	✓	✓	✓				X
12-6-84	WELL 21I	6	✓	✓	✓	✓				X
12-6-84	WELL 35	4	✓							X
12-6-84	WELL 36	8								
12-6-84	WELL 37									
TOTAL * OF CONTAINERS		66								

LABORATORY

Measurement Sciences Corp.
California Analytical Laboratory

PROJECT # V-1367-5

Delivered

SEALED BY: Richard J. Stoer

DATE

12-6-84

RECEIVED BY: Frank J.

DATE

12/7/84

NOTATIONS

The containers for this sample were Analyzed and found to be
filled with water, no other liquid and no sediment materials.

SAMPLE SHIPMENT # 645-002-1264

GERAGHTY & MILLER INC. Page 1 of 2

ANALYSIS

CHAIN OF CUSTODY

**TOTAL # OF
CONTAINERS**

21

EF There are many joint issues incorporating standards from the contract for direct delivery of coal.

LABORATORY

MISCELLANEOUS SCIENCE

PROJECT # AB-15-13

Dickens

SEALED BY:

100

DATE

Richard Sandbag

RECEIVED BY:

DATE

BY: H. G. H.

NOTATIONS

Next is his son's construction list.

CHAIN OF CUSTODY DOCUMENTATION

Sample Shipment No. 695-032-1264

	Date	Time	Signature	Company
Relinquished:	<u>12-6-84</u>	<u>8:00 pm</u>	<u>Richard J. Cronin</u>	<u>Geraghty & Keen</u>
Received:	<u>12/6/84</u>	<u>2000</u>	<u>E. Weeth</u>	<u>GFM</u>
Relinquished:	<u>12/7/84</u>	<u>10:05</u>	<u>E. Weeth</u>	<u>GFM</u>
Received:	<u>12/7/84</u>	<u>10:05</u>	<u>J. Inc. Cronin</u>	<u>GFM</u>
Relinquished:	<u>12/7/84</u>	<u>10:45</u>	<u>J. Inc. Cronin</u>	<u>GFM</u>
Received:	<u>12/7/84</u>	<u>10:45</u>	<u>J. Frankfort</u>	<u>MCC</u>
Relinquished:	_____	_____	_____	_____
Received:	_____	_____	_____	_____
Relinquished:	_____	_____	_____	_____
Received:	_____	_____	_____	_____
Relinquished:	_____	_____	_____	_____
Received:	_____	_____	_____	_____

GERAGHTY & MILLER INC.

CHAIN OF CUSTODY

ANALYSIS

DATE	SAMPLE IDENTITY	# OF CONTAINERS	VOLATILE ORGANICS	PTEROIDS	TOC	BASE-NEUTRAL EXTRACT	ACID EXTRACT	Filter HACCP sample	Filter trip blank
12-6-84	WELL 36	8	✓	✓	✓	✓	✓	✓	4A
12-4-84	WELL 75	6	✓	✓	✓	✓	✓	✓	4A
12-5-84	WELL 35	7	✓	✓	✓	✓	✓	✓	4A
12-8-84	WELL 38	7	✓	✓	✓	✓	✓	✓	9
12-8-84	WELL 9I	7	✓	✓	✓	✓	✓	✓	9
12-7-84	WELL 5I	7	✓	✓	✓	✓	✓	✓	10
12-7-84	WELL MW-7	7	✓	✓	✓	✓	✓	✓	10
12-7-84	WELL 1	7	✓	✓	✓	✓	✓	✓	10
12-7-84	WELL 37	6	✓	✓	✓	✓	✓	✓	10
12-7-84	WELL 28I	7	✓	✓	✓	✓	✓	✓	10
12-7-84	WELL 4I	7	✓	✓	✓	✓	✓	✓	10
12-7-84	WELL MW-3	7	✓	✓	✓	✓	✓	✓	11
12-7-84	WELL 25	7	✓	✓	✓	✓	✓	✓	11
12-7-84	WELL 11I	7	✓	✓	✓	✓	✓	✓	11
TOTAL # OF CONTAINERS		91							

TOTAL # OF CONTAINERS

PROJECT # N695CR3

LABORATORY

Measurement Sciences Corp /
California Analytical Laboratory

SEALED BY:

Richard Sweeting

RECEIVED BY:

S Frankfort

DATE

12-10-84

DATE

12/10/84

NOTATIONS

WELL 75 - NO CN AND only 200-300 ml in BASE-NEUTRAL
Samples are IGT

GERAGHTY & MILLER INC.

CHAIN OF CUSTODY

ANALYSIS

LABORATORY

Measurement Sciences Corp.
California Analytical Laboratory

PROJECT # N645ER3

SEALED BY:

Richard Sandberg
12-10-84

RECEIVED BY:

DATE

NOTATIONS

SAMPLE SHIPMENT # 695-001-10054

GERAGHTY & MILLER INC.

ANALYSIS

CHAIN OF CUSTODY

DATE	SAMPLE IDENTITY	* OF CONTAINERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	8010	8011	8012	8013	8014	8015	8016	8017	8018	8019	8020	8021	8022	8023	8024	8025	8026	8027	8028	8029	8030	8031	8032	8033	8034	8035	8036	8037	8038	8039	8040	8041	8042	8043	8044	8045	8046	8047	8048	8049	8050	8051	8052	8053	8054	8055	8056	8057	8058	8059	8060	8061	8062	8063	8064	8065	8066	8067	8068	8069	8070	8071	8072	8073	8074	8075	8076	8077	8078	8079	8080	8081	8082	8083	8084	8085	8086	8087	8088	8089	8090	8091	8092	8093	8094	8095	8096	8097	8098	8099	80100	80101	80102	80103	80104	80105	80106	80107	80108	80109	80110	80111	80112	80113	80114	80115	80116	80117	80118	80119	80120	80121	80122	80123	80124	80125	80126	80127	80128	80129	80130	80131	80132	80133	80134	80135	80136	80137	80138	80139	80140	80141	80142	80143	80144	80145	80146	80147	80148	80149	80150	80151	80152	80153	80154	80155	80156	80157	80158	80159	80160	80161	80162	80163	80164	80165	80166	80167	80168	80169	80170	80171	80172	80173	80174	80175	80176	80177	80178	80179	80180	80181	80182	80183	80184	80185	80186	80187	80188	80189	80190	80191	80192	80193	80194	80195	80196	80197	80198	80199	80200	80201	80202	80203	80204	80205	80206	80207	80208	80209	80210	80211	80212	80213	80214	80215	80216	80217	80218	80219	80220	80221	80222	80223	80224	80225	80226	80227	80228	80229	80230	80231	80232	80233	80234	80235	80236	80237	80238	80239	80240	80241	80242	80243	80244	80245	80246	80247	80248	80249	80250	80251	80252	80253	80254	80255	80256	80257	80258	80259	80260	80261	80262	80263	80264	80265	80266	80267	80268	80269	80270	80271	80272	80273	80274	80275	80276	80277	80278	80279	80280	80281	80282	80283	80284	80285	80286	80287	80288	80289	80290	80291	80292	80293	80294	80295	80296	80297	80298	80299	80300	80301	80302	80303	80304	80305	80306	80307	80308	80309	80310	80311	80312	80313	80314	80315	80316	80317	80318	80319	80320	80321	80322	80323	80324	80325	80326	80327	80328	80329	80330	80331	80332	80333	80334	80335	80336	80337	80338	80339	80340	80341	80342	80343	80344	80345	80346	80347	80348	80349	80350	80351	80352	80353	80354	80355	80356	80357	80358	80359	80360	80361	80362	80363	80364	80365	80366	80367	80368	80369	80370	80371	80372	80373	80374	80375	80376	80377	80378	80379	80380	80381	80382	80383	80384	80385	80386	80387	80388	80389	80390	80391	80392	80393	80394	80395	80396	80397	80398	80399	80400	80401	80402	80403	80404	80405	80406	80407	80408	80409	80410	80411	80412	80413	80414	80415	80416	80417	80418	80419	80420	80421	80422	80423	80424	80425	80426	80427	80428	80429	80430	80431	80432	80433	80434	80435	80436	80437	80438	80439	80440	80441	80442	80443	80444	80445	80446	80447	80448	80449	80450	80451	80452	80453	80454	80455	80456	80457	80458	80459	80460	80461	80462	80463	80464	80465	80466	80467	80468	80469	80470	80471	80472	80473	80474	80475	80476	80477	80478	80479	80480	80481	80482	80483	80484	80485	80486	80487	80488	80489	

SAMPLE SHIPMENT # 695-001-12054
GERAGHTY & MILLER INC.

GERAGHTY & MILLER INC.

ANALYSIS

CHAIN OF CUSTODY

LABORATORY MECHANICAL SCIENCES (CIVIL)
INTERNA TUNICATE LAB

PROJECT # W-101-3

SEALED BY: *Eric Cressler*

RECEIVED BY: *J. M. L.*

DATE 17-5-84 /

DATE 1/15/20

DATE 12-5-84 DATE 12-5-84

DATE 1/15/20

DATE 1/15/20

NOTATIONS

Page 1 of 2

Geraghty & Miller, Inc.

APPENDIX C

Table C-1. Core Sample Logs

**Table C-2. Summary of Waste Lagoon
Sludge Quality Data**

Table C-1. Core Sample Logs, Universal Oil Products, East Rutherford, New Jersey.

<u>Description</u>	<u>Depth (feet below land surface)</u>	<u>HNu</u>
<u>Sample Point 1 - January 8, 1985</u>		
Organic debris	0 - 0.50	0.5
Sludge, white; with clay	0.50 - 0.75	0.5
Sand, tan, fine	0.75 - 0.80	0.5
Sludge and clay	0.80 - 1	0.5
Sludge, brown; with sand	1 - 1.25	0.4
Sludge, gray, and clay	1.25 - 2	15 -20
Peat, brown; unsaturated	2 - 2.5	0.4
<u>Sample Point 2 - January 8, 1985</u>		
Organic debris and peat	0 - 0.8	0 - 0.2
Sludge, dark brown; sand, white/tan, wet	0.8 - 1	0 - 0.2
Sludge, green and tan, and clay	1 - 2	0.2
Sludge, blue/gray; with clay	2 - 3	0.2-20
Peat, dark brown; dry	3 - 4	2 -20
<u>Note:</u> Point of highest HNu reading occurred at depth of 3 feet.		
<u>Sample Point 3 - January 8, 1985</u>		
Organic debris and peat	0 - 0.5	0
Sludge, brown; with sand	0.5 - 1	0
Sludge, gray; with clay and some peat	1 - 1.1	1
Sludge, white and tan; with sand	1.1 - 1.3	2
Sludge, gray; with black and orange clay lenses	1.3 - 2	2
Peat, brown; unsaturated	2 - 3	2
<u>Sample Point 4 - January 8, 1985</u>		
Organic debris, dark brown, and peat	0 - 0.6	0 - 2
Sludge, white; with sand	0.6 - 0.8	0 - 2
Sludge, variegated; with sand and clay	0.8 - 1	0 - 2
Sludge, variegated; with clay	1 - 2	0 - 2
Sludge, black	2 - 2.1	0 - 4
Sludge, blue; with variegated clay	2.1 - 3	4
Peat, dark brown; unsaturated	3 - 4	0 - 2

Table C-1. (Continued)

<u>Description</u>	<u>Depth (feet below land surface)</u>	<u>HNu</u>
<u>Sample Point 5 - January 8, 1985</u>		
Organic debris, and peat, dark brown	0 - 1	0 - 2
Sludge, dark gray; with clay	1 - 2	14
Sludge, gray and tan; with clay and sand	2 - 3	2
Peat, brown; unsaturated	3 - 4	2
<u>Sample Point 6 - January 9, 1985</u>		
Organic debris	0 - 0.8	0 - 4
Sludge, dark blue	0.8 - 0.9	4
Sludge, brown; with medium sand	0.9 - 1.5	10
Sand	1.5 - 2	4 - 10
Peat, brown; dry	2 - 2.5	30 - 40
Peat, brown; wet	2.5 - 3	10 - 30
<u>Sample Point 7 - January 9, 1985</u>		
Organic debris and peat	0 - 0.4	0
Sludge, white; with sand	0.4 - 0.5	0
Sludge, brown; with sand	0.5 - 0.6	0
Sludge, green/gray; with sand	0.6 - 1.3	0
Sludge, brown; with medium sand	1.3 - 1.4	5
Sludge, white; with sand	1.4 - 1.6	5
Sludge, black	1.6 - 1.8	5
Sludge, light green/gray	1.8 - 2.4	8
Sludge, dark green/gray	2.4 - 2.6	3
Peat, dark brown; dry	2.6 - 3.2	10 - 18
<u>Sample Point 8 - January 9, 1985</u>		
Organic debris and peat, dark brown	0 - 0.5	0 - 1
Sludge, black/brown; with sand and some roots	0.5 - 0.80	0 - 1
Sludge, white; with sand	0.80- 0.85	1 - 4
Sludge, green	0.85- 0.90	1 - 4
Sludge, brown; with sand	0.90- 1	4
Sludge, black/green	1 - 1.3	4
Sludge, white	1.3 - 1.4	4
Sludge, brown with black layers	1.4 - 1.5	4
Sludge, green/black	1.5 - 1.6	4

Table C-1. (Continued)

<u>Description</u>	<u>Depth (feet below land surface)</u>	<u>HNu</u>
<u>Sample Point 8 (Cont'd.)</u>		
Sludge, brown; dry	1.6 - 2	10
Sludge, dark green/black; with sand	2 - 3	10
Peat, brown	3 - 3.5	15
Clay, gray; with sand	3.5 - 4	
<u>Note:</u> A green and pink sheen appeared on surface of water in core holes.		
<u>Sample Point 9 - January 9, 1985</u>		
Organic debris and peat, dark brown	0 - 1	0 - 1
Sludge, variegated; with sand	1 - 2	5
Sludge, variegated; with sand	2 - 2.4	20
Sludge, green/gray	2.4 - 3	20
Peat, light brown; dry	3 - 3.5	20
Clay, gray/brown with black lenses; sand	3.5 - 4	0 - 4
<u>Note:</u> Oily sheen on outside of upper core.		
<u>Sample Point 10 - January 11, 1985</u>		
Organic debris and peat	0 - 0.5	0
Sludge, brown; with sand	0.5 - 1	0
Sludge, black; oily	1 - 1.6	1
Sludge, black and green/gray lenses; oily	1.6 - 2	1
Sludge, white	2 - 2.1	1
Sludge, black; oily	2.1 - 2.3	1
Sludge, black; oily with peat	2.3 - 3	1
Peat; dry	3 - 3.3	1
Peat; wet	3.3 - 3.4	1
Clay, gray; with sand	3.4 - 4	1
<u>Sample Point 11 - January 10, 1985</u>		
Organic matter and peat	0 - 1	0 - 1
Sludge, brown; with sand	1 - 1.2	0 - 1
Sludge, white	1.2 - 1.4	0 - 1
Sludge, black	1.4 - 1.5	0 - 1
Sludge, brown; with sand	1.5 - 1.6	1 - 2
Sludge, black; oily	1.6 - 3	1 - 2

Table C-1. (Continued)

<u>Description</u>	<u>Depth (feet below land surface)</u>	<u>HNu</u>
<u>Sample Point 11 (Cont'd.)</u>		
Peat, brown	3 - 3.5	3
Clay, gray; with sand	3.5 - 4	2
<u>Note:</u> Core may be compacted.		
<u>Sample Point 12 - January 10, 1985</u>		
Organic debris and peat	0 - 1	0
Sludge, gray; with sand	0.5 - 0.80	0 - 1
Sludge, white; with sand	0.8 - 0.9	0 - 1
Sludge, black; with sand	0.9 - 1	0 - 1
Sludge, tan; with sand	1 - 1.2	0 - 1
Sludge, gray/green	1.2 - 1.3	3
Sludge, black; oily	1.3 - 1.4	3
Sludge, black/gray; oily	1.4 - 2	5
Peat, black; oily	2 - 2.5	2
Peat, brown; wet	2.5 - 3	2
<u>Note:</u> Strong noxious odor in this area, requiring the use of respirators.		
<u>Sample Point 13 - January 11, 1985</u>		
Organic debris and peat; wet	0 - 1.	0
Sludge, dark gray; with sand	1 - 1.4	3
Sludge, brown and white	1.4 - 2	3
Sludge, green, black and white lenses; oily	2 - 2.5	3
Sludge, black, oily	2.5 - 3	3
Peat, black; oily	3 - 3.2	5
Peat, brown; dry	3.2 - 4	10
Clay, gray; with sand	4 - 4.5	5
<u>Sample Point 14 - January 14, 1985</u>		
Organic debris and peat	0 - 0.5	0
Sludge, black; oily, with sand and organic debris	0.5 - 0.7	0 - 3
Sludge, black; oily	0.7 - 1	3
Sludge, tan; with sand	1 - 1.1	3
Sludge, black; oily	1.1 - 1.3	3
Sludge, gray; grading to white	1.3 - 1.4	3

Table C-1. (Continued)

<u>Description</u>	<u>Depth (feet below land surface)</u>	<u>HNu</u>
<u>Sample Point 14 (Cont'd.)</u>		
Sludge, white; with sand	1.4 - 1.5	3
Sludge, gray; with sand	1.5 - 1.6	3
Sludge, tan, black and gray lenses; with sand.	1.6 - 1.7	3
Sludge, green, white and black lenses	1.7 - 1.8	3
Sludge, black; oily	1.8 - 2.5	5
Peat, black; oily	2.5 - 3	5
Peat, brown; dry	3 - 3.5	3
Clay, gray; wet	3.5 - 4	3
<u>Sample Point 15 - January 10, 1985</u>		
Organic matter and peat	0 - 1.3	0
Sludge, black and dark gray; with sand	1.3 - 1.8	0 - 3
Sludge, white/brown; with pink lenses	1.8 - 2	0 - 3
Sludge, green/gray	2 - 2.2	3
Sludge, dark brown; with sand	2.2 - 2.5	3
Peat, brown	2.5 - 3.5	2 - 4
Clay, gray; mottled with orange, brown and black	3.5 - 4.5	2 - 3
<u>Sample Point 16 - January 10, 1985</u>		
Organic matter, black; wet	0 - 0.5	0
Sludge, black and gray; oily with sand	0.5 - 1.5	0 - 1
Peat, brown	1.5 - 2	3 - 4
Clay, gray; with sand	2 - 3	2 - 3
<u>Note:</u> Sludge sample was very oily.		
<u>Sample Point 17 - January 10, 1985</u>		
Organic matter and peat	0 - 1	0 - 1
Sludge, light brown; with sand	1 - 1.4	0 - 1
Sludge, gray	1.4 - 1.5	3 - 10
Sludge, light brown	1.5 - 1.6	3 - 10
Sludge, black; oily	1.6 - 1.7	3 - 10
Sludge, light brown, gray and black	1.7 - 2	3 - 10
Sludge, gray/white; with sand	2 - 2.5	3 - 10
Sludge, white; with sand	2.5 - 3	3 - 10
Sludge, green	3 - 3.05	3 - 10

Table C-1. (Continued)

<u>Description</u>	<u>Depth (feet below land surface)</u>	<u>HNu</u>
<u>Sample Point 17 (Cont'd.)</u>		
Sludge, black; oily	3.05 - 3.5	3 - 10
Peat, brown	3.5 - 4	20
Clay, gray; with sand	4 - 4.5	10
<u>Sample Point 18 - January 10, 1985</u>		
Peat and organic matter	0 - 1	0
Sludge, brown; with sand	1 - 1.1	15
Sludge, black; with sand	1.1 - 1.2	10
Sludge, tan/white	1.2 - 1.3	5
Sludge, black	1.3 - 1.6	5
Sludge, gray/green	1.6 - 2	5
Sludge, black; oily with sand	2 - 2.5	5
Sludge, white, brown, black and green/gray lenses	2.5 - 3	5
Peat, black; saturated with oil	3 - 3.5	5
Peat, brown; saturated with water	3.5 - 4	5
Clay, gray; with sand	4 - 4.5	5
<u>Sample Point 19 - January 9, 1985</u>		
Peat, black	0 - 1.5	0
Clay, gray; with sand	1.5 - 2	0
Peat, black; wet	2 - 3.5	3 - 5
<u>Note:</u> Very strong odor of H ₂ S in peat, increasing with depth. Water table at 3 feet.		
<u>Sample Point 20 - January 10, 1985</u>		
Peat, black	0 - 0.8	0 - 0.5
Clay, gray; with fine sand	0.8 - 1.2	0 - 0.5
Peat, dark brown; with organic matter	1.5 - 2	1
Peat, dark brown; wet	2 - 3	5 - 10
<u>Note:</u> Strong H ₂ S odor in peat, increasing with depth. Water table at 2.5 feet.		

Table C-1. (Continued)

<u>Description</u>	<u>Depth (feet below land surface)</u>	<u>HNU</u>
<u>Sample Point 21 - January 11, 1985</u>		
Organic matter	0 - 0.3	7
Peat, dark brown/black	0.3 - 2.5	6
Peat, dark brown/black; with clay, wet	2.5 - 3.5	5
<u>Note:</u> Tide at flood level.		
<u>Sample Point 22 - January 11, 1985</u>		
Peat, dark brown; with silt, dry	0 - 2.5	0
Peat, dark brown; with silt, wet	2.5 - 3.5	0
<u>Note:</u> Sampling point above high water mark.		
<u>Sample Point 23 - January 11, 1985</u>		
Peat, dark brown; with silt, moist	0 - 0.3	0
Clay, gray; with sand	0.3 - 0.9	0
Peat; with silt, wet	2.5 - 3.5	0
<u>Sample Point 24 - January 11, 1985</u>		
Peat, dark brown; with silt, moist	0 - 0.5	0
Peat, dark brown; with silt, saturated	0.5 - 2	0
<u>Note:</u> Water fills hole at 2 feet. Sampling point is located by overflow of basin.		
<u>Sample Point 25 - January 12, 1985</u>		
Peat, dark brown; with silt, moist	0 - 1	0
Peat, dark brown; with silt, saturated	0.5 - 2	0
<u>Note:</u> Water fills hole at 1.5 feet.		
<u>Sample Point 26 - January 12, 1985</u>		
Peat, dark brown; with silt, dry	0 - 0.5	0
Peat, dark brown; with silt, moist	0.5 - 1.5	0.5
Peat, dark brown; with silt, wet	1.5 - 3	1
<u>Note:</u> Water enters hole at 2.5 feet. Mild H ₂ S odor in peat.		

TABLE C-2. SUMMARY OF WASTE LAGOON SLUDGE QUALITY DATA FOR UOP INC.'S
PLANT SITE IN EAST RUTHERFORD, NEW JERSEY

CHEMICAL CONCENTRATIONS (reported in micrograms/kilograms, except where noted)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	1A	1B	1C	2A	2B	2C
		1-2'	2-3'	5-6'	2-3'	3-4'	6-7'
		SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85
acrolein		<5000	<5000	<1000	<5000	<5000	<1000
acrylonitrile		<5000	<5000	<1000	<5000	<5000	<1000
benzene		1600	17000	660	19000	12000	2000
carbon tetrachloride		<1000	<1000	<200	<1000	<1000	<200
chlorobenzene		11000	4000	630	11000	6500	750
1,2-dichloroethane		<1000	<1000	<200	<1000	<1000	<200
1,1,1-trichloroethane		<1000	<1000	<200	<1000	<1000	<200
1,1-dichloroethane		<1000	<1000	<200	<1000	<1000	<200
1,1,2-trichloroethane		<1000	<1000	<200	<1000	<1000	<200
1,1,2,2-tetrachloroethane		<1000	<1000	<200	<1000	<1000	<200
chloroethane		<1000	<1000	<200	<1000	<1000	<200
2-chloroethyl vinyl ether		<5000	<5000	<1000	<5000	<5000	<1000
chloroform		<1000	<1000	<200	<1000	<1000	<200
1,1-dichloroethylene		<1000	<1000	<200	<1000	<1000	<200
1,2-trans-dichloroethylene		19000	33000	630	<1000	650	<200
1,2-dichloropropane		<1000	<1000	<200	<1000	<1000	<200
1,3-dichloropropylene		<1000	<1000	<200	<1000	<1000	<200
ethylbenzene		6600	5600	340	16000	5500	600
methylene chloride		<2500	<2500	<500	<2500	<2500	<500
methyl chloride		<1000	<1000	<200	<1000	<1000	<200
methyl bromide		<1000	<1000	<200	<1000	<1000	<200
bromoform		<1000	<1000	<200	<1000	<1000	<200
dichlorobromomethane		<1000	<1000	<200	<1000	<1000	<200
trichlorofluoromethane		<1000	<1000	<200	<1000	<1000	<200
dichlorodifluoromethane		<1000	<1000	<200	<1000	<1000	<200
chlorodibromomethane		<1000	<1000	<200	<1000	<1000	<200
tetrachloroethylene		2100	<1000	<200	<1000	<1000	<200
toluene		75000	120000	3900	220000	140000	14000
trichloroethylene		1800	<1000	<200	5800	1900	240
vinyl chloride		<1000	<1000	<200	<1000	<1000	<200
acetone		<2500	<2500	<500	<2500	<2500	<500
2-butanone		<2500	<2500	<500	<2500	<2500	<500
carbon disulfide		<1000	<1000	<200	<1000	<1000	<200
2-hexanone		<2500	<2500	<500	<2500	<2500	<500
4-methyl-2-pentanone		<2500	<2500	<500	<2500	<2500	<500
stryrene		<1000	<1000	<200	<1000	<1000	<200
vinyl acetate		<5000	<5000	<1000	<5000	<5000	<1000
total xylenes		30000	23000	1200	50000	21000	2600

TABLE C-2. (CONTINUED/PAGE 2)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	3A	3B	3C	4A	4B	4C
		1-2'	2.5-3'	5-6'	2-3'	3-4'	5-6'
acrolein		<10000	<5000	<2000	<10000	<5000	<1000
acrylonitrile		<10000	<5000	<2000	<10000	<5000	<1000
benzene		33000	9100	2300	26000	820	<200
carbon tetrachloride		<2000	<1000	<400	<2000	<1000	<200
chlorobenzene		13000	8700	840	27000	5200	<200
1,2-dichloroethane		<2000	<1000	<400	<2000	<1000	<200
1,1,1-trichloroethane		<2000	<1000	<400	<2000	<1000	<200
1,1-dichloroethane		<2000	<1000	<400	<2000	<1000	<200
1,1,2-trichloroethane		<2000	<200	<400	<2000	<1000	<200
1,1,2,2-tetrachloroethane		<2000	<1000	<400	<2000	<1000	<200
chloroethane		<2000	<1000	<400	<2000	<1000	<200
2-chloroethyl vinyl ether		<10000	<5000	<2000	<10000	<5000	<1000
chloroform		<2000	<1000	<400	<2000	<1000	<200
1,1-dichloroethylene		<2000	<1000	<400	<2000	<1000	<200
1,2-trans-dichloroethylene		25000	15000	2200	15000	<1000	<200
1,2-dichloropropane		<2000	<1000	<400	<2000	<1000	<200
1,3-dichloropropylene		<2000	<1000	<400	<2000	<1000	<200
ethylbenzene		12000	8600	580	19000	1900	<500
methylene chloride		<5000	<2500	<1000	<5000	<2500	<500
methyl chloride		<2000	<1000	<400	<2000	<1000	<200
methyl bromide		<2000	<1000	<400	<2000	<1000	<200
bromoform		<2000	<1000	<400	<2000	<1000	<200
dichlorobromomethane		<2000	<1000	<400	<2000	<1000	<200
trichlorofluoromethane		<2000	<1000	<400	<2000	<1000	<200
dichlorodifluoromethane		<2000	<1000	<400	<2000	<1000	<200
chlorodibromomethane		<2000	<1000	<400	<2000	<1000	<200
tetrachloroethylene		41000	<1000	<400	7600	<1000	<200
toluene		320000	130000	16000	399000	39000	960
trichloroethylene		104000	<1000	<400	49000	<1000	<200
vinyl chloride		<2000	<1000	<400	<2000	<1000	<200
acetone		<5000	<2500	<1000	<5000	<2500	<500
2-butanone		<5000	<2500	<1000	<5000	<2500	<500
carbon disulfide		<2000	<1000	<400	<2000	<1000	<200
2-hexanone		<5000	<2500	<1000	<5000	<2500	<500
4-methyl-2-pentanone		<5000	<2500	<1000	<5000	<2500	<500
stryrene		<2000	<1000	<400	<2000	<1000	<200
vinyl acetate		<10000	<5000	<2000	<10000	<5000	<1000
total xylenes		39000	21000	2000	70000	8500	<200

TABLE C-2. (CONTINUED/PAGE 3)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	5A	5B	5C	6A	6B	6C
		1-2'	3-4'	5-6'	1-2'	3-4'	6-7'
acrolein		<10000	<5000	<1000	<5000	<5000	<1000
acrylonitrile		<10000	<5000	<1000	<5000	<5000	<1000
benzene		4100	950	<200	2300	8600	320
carbon tetrachloride		<2000	<1000	<200	<1000	<1000	<200
chlorobenzene		1600	15000	130	3000	4500	<200
1,2-dichloroethane		<2000	<1000	<200	<1000	<1000	<200
1,1,1-trichloroethane		<2000	<1000	<200	<1000	<1000	<200
1,1-dichloroethane		<2000	<1000	<200	<1000	<1000	<200
1,1,2-trichloroethane		<2000	<1000	<200	<1000	<1000	<200
1,1,2,2-tetrachloroethane		<2000	<1000	<200	<1000	<1000	<200
chloroethane		<2000	<1000	<200	<1000	<1000	<200
2-chloroethyl vinyl ether		<10000	<5000	<1000	<5000	<5000	<1000
chloroform		<2000	<1000	<200	<1000	<1000	<200
1,1-dichloroethylene		<2000	<1000	<200	<1000	<1000	<200
1,2-trans-dichloroethylene		8700	11000	1100	<1000	<1000	<200
1,2-dichloropropane		<2000	<1000	<200	<1000	<1000	<200
1,3-dichloropropylene		<2000	<1000	<200	<1000	<1000	<200
ethylbenzene		2800	<2500	<500	8200	21000	<500
methylene chloride		<5000	<2500	<500	<2500	<2500	<500
methyl chloride		<2000	<1000	<200	<1000	<1000	<200
methyl bromide		<2000	<1000	<200	<1000	<1000	<200
bromoform		<2000	<1000	<200	<1000	<1000	<200
dichlorobromomethane		<2000	<1000	<200	<1000	<1000	<200
trichlorofluoromethane		<2000	<1000	<200	<1000	<1000	<200
dichlorodifluoromethane		<2000	<1000	<200	<1000	<1000	<200
chlorodibromomethane		<2000	<1000	<200	<1000	<1000	<200
tetrachloroethylene		<2000	1100	<200	<1000	<1000	<200
toluene		25000	84000	1100	55000	150000	2400
trichloroethylene		1200	7400	<200	2800	12000	<200
vinyl chloride		<2000	<1000	<200	<1000	<1000	<200
acetone		32000	<2500	<500	<2500	<2500	<500
2-butanone		<5000	<2500	<500	<2500	<2500	<500
carbon disulfide		<2000	<1000	<200	<1000	<1000	<200
2-hexanone		<5000	<2500	<500	<2500	<2500	<500
4-methyl-2-pentanone		<5000	<2500	<500	<2500	<2500	<500
stryrene		<2000	<1000	<200	<1000	<1000	<200
vinyl acetate		<10000	<5000	<1000	<5000	<5000	<1000
total xylenes		11000	23000	<200	29000	85000	800

TABLE C-2. (CONTINUED/PAGE 4)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	7A	7B	7C	8A	8B	8C
		2-3'	3-4'	4-5'	2-3'	3-3.5'	5-6'
acrolein		<10000	<5000	<1000	<10000	<5000	<1000
acrylonitrile		<10000	<5000	<1000	<10000	<5000	<1000
benzene		23000	4200	340	<2000	<1000	<200
carbon tetrachloride		<2000	<1000	<200	<2000	<1000	<200
chlorobenzene		29000	19000	2600	7700	6800	<200
1,2-dichloroethane		<2000	<1000	<200	<2000	<1000	<200
1,1,1-trichloroethane		<2000	<1000	<200	<2000	<1000	<200
1,1-dichloroethane		<2000	<1000	<200	<2000	<1000	<200
1,1,2-trichloroethane		<2000	<1000	<200	<2000	<1000	<200
1,1,2,2-tetrachloroethane		<2000	<1000	<200	<2000	<1000	<200
chloroethane		<2000	<1000	<200	<2000	<1000	<200
2-chloroethyl vinyl ether		<10000	<5000	<1000	<10000	<5000	<1000
chloroform		<2000	<1000	<200	<2000	<1000	<200
1,1-dichloroethylene		<2000	<1000	<200	<2000	<1000	<200
1,2-trans-dichloroethylene		17000	12000	<200	<2000	<1000	<200
1,2-dichloropropane		<2000	<1000	<200	<2000	<1000	<200
1,3-dichloropropylene		<2000	<1000	<200	<2000	<1000	<200
ethylbenzene		19000	3900	690	9300	4600	<500
methylene chloride		<5000	<2500	<500	<5000	<2500	<500
methyl chloride		<2000	<1000	<200	<2000	<1000	<200
methyl bromide		<2000	<1000	<200	<2000	<1000	<200
bromoform		<2000	<1000	<200	<2000	<1000	<200
dichlorobromomethane		<2000	<1000	<200	<2000	<1000	<200
trichlorofluoromethane		<2000	<1000	<200	<2000	<1000	<200
dichlorodifluoromethane		<2000	<1000	<200	<2000	<1000	<200
chlorodibromomethane		<2000	<1000	<200	<2000	<1000	<200
tetrachloroethylene		12000	<1000	<200	<2000	<1000	<200
toluene		321000	130000	9600	68000	35000	<200
trichloroethylene		110000	3100	<200	<2000	<1000	<200
vinyl chloride		<2000	<1000	<200	<2000	<1000	<200
acetone		<5000	<2500	<500	<5000	<2500	<500
2-butanone		<5000	<2500	<500	<5000	<2500	<500
carbon disulfide		<2000	<1000	<200	<2000	<1000	<200
2-hexanone		<5000	<2500	<500	<5000	<2500	<500
4-methyl-2-pentanone		<5000	<2500	<500	<5000	<2500	<500
stryrene		<2000	<1000	<200	<2000	<1000	<200
vinyl acetate		<10000	<5000	<1000	<10000	<5000	<1000
total xylenes		62000	14000	2900	43000	18000	<200

TABLE C-2. (CONTINUED/PAGE 5)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	9A	9B	9C	10A	10B	10C
		2-3'	3-4'	5-6'	2-3'	3-3.5'	3.5-4'
acrolein		<5000	<1000	<1000	<5000	<1000	<1000
acrylonitrile		<5000	<1000	<1000	<5000	<1000	<1000
benzene		12000	1300	<200	4700	3900	<200
carbon tetrachloride		<1000	<200	<200	<1000	<200	<200
chlorobenzene		14000	2500	<200	6500	6800	<200
1,2-dichloroethane		<1000	<200	<200	<1000	<200	<200
1,1,1-trichloroethane		<1000	<200	<200	<1000	<200	<200
1,1-dichloroethane		<1000	<200	<200	<1000	<200	<200
1,1,2-trichloroethane		<1000	<200	<200	<1000	<200	<200
1,1,2,2-tetrachloroethane		<1000	<200	<200	<1000	<200	<200
chloroethane		<1000	<200	<200	<1000	<200	<200
2-chloroethyl vinyl ether		<5000	<1000	<1000	<5000	<1000	<1000
chloroform		<1000	<200	<200	<1000	<200	<200
1,1-dichloroethylene		<1000	<200	<200	<1000	<200	<200
1,2-trans-dichloroethylene		9400	720	<200	<1000	<200	<200
1,2-dichloropropane		<1000	<200	<200	<1000	<200	<200
1,3-dichloropropylene		<1000	<200	<200	<1000	<200	<200
ethylbenzene		17000	1500	<500	3100	830	<500
methylene chloride		<2500	<500	<500	<2500	<500	<500
methyl chloride		<1000	<200	<200	<1000	<200	<200
methyl bromide		<1000	<200	<200	<1000	<200	<200
bromoform		<1000	<200	<200	<1000	<200	<200
dichlorobromomethane		<1000	<200	<200	<1000	<200	<200
trichlorofluoromethane		<1000	<200	<200	<1000	<200	<200
dichlorodifluoromethane		<1000	<200	<200	<1000	<200	<200
chlorodibromomethane		<1000	<200	<200	<1000	<200	<200
tetrachloroethylene		2500	<200	<200	<1000	<200	<200
toluene		180000	18000	<200	23000	2700	<200
trichloroethylene		5700	<200	<200	<1000	<200	<200
vinyl chloride		<1000	<200	<200	<1000	<200	<200
acetone		<2500	<500	<500	<2500	<500	<500
2-butanone		<2500	<500	<500	<2500	<500	<500
carbon disulfide		<1000	<200	<200	<1000	<200	<200
2-hexanone		<2500	<500	<500	<2500	<500	<500
4-methyl-2-pentanone		<2500	<500	<500	<2500	<500	<500
stryrene		<1000	<200	<200	<1000	<200	<200
vinyl acetate		<5000	<1000	<1000	<5000	<1000	<1000
total xylenes		68000	8500	<200	15000	1600	<200

TABLE C-2. (CONTINUED/PAGE 6)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	11A	11B	11C	12A	12B
		2-3'	3-3.5'	3.5-4'	1-2'	2-3'
acrolein		<1000	<1000	<1000	<1000	<1000
acrylonitrile		<1000	<1000	<1000	<1000	<1000
benzene		820	360	<200	<200	1400
carbon tetrachloride		<200	<200	<200	<200	<200
chlorobenzene		520	450	<200	850	740
1,2-dichloroethane		<200	<200	<200	<200	<200
1,1,1-trichloroethane		<200	<200	<200	<200	<200
1,1-dichloroethane		<200	<200	<200	<200	<200
1,1,2-trichloroethane		<200	<200	<200	<200	<200
1,1,2,2-tetrachloroethane		<200	<200	<200	<200	<200
chloroethane		<200	<200	<200	<200	<200
2-chloromethyl vinyl ether		<1000	<1000	<1000	<1000	<1000
chloroform		<200	<200	<200	<200	<200
1,1-dichloroethylene		<200	<200	<200	<200	<200
1,2-trans-dichloroethylene		<200	<200	<200	<200	<200
1,2-dichloropropane		<200	<200	<200	<200	<200
1,3-dichloropropylene		<200	<200	<200	<200	<200
ethylbenzene		1000	1500	<500	<500	260
methylene chloride		<500	<500	<500	<500	<500
methyl chloride		<200	<200	<200	<200	<200
methyl bromide		<200	<200	<200	<200	<200
bromoform		<200	<200	<200	<200	<200
dichlorobromomethane		<200	<200	<200	<200	<200
trichlorofluoromethane		<200	<200	<200	<200	<200
dichlorodifluoromethane		<200	<200	<200	<200	<200
chlorodibromomethane		<200	<200	<200	<200	<200
tetrachloroethylene		<200	<200	<200	<200	<200
toluene		1100	160	<200	170	290
trichloroethylene		<200	<200	<200	<200	<200
vinyl chloride		<200	<200	<200	<200	<200
acetone		<500	<500	<500	<500	<500
2-butanone		<500	<500	<500	<500	<500
carbon disulfide		<200	<200	<200	<200	<200
2-hexanone		<500	<500	<500	<500	<500
4-methyl-2-pentanone		<500	<500	<500	<500	<500
stryrene		<200	<200	<200	<200	<200
vinyl acetate		<1000	<1000	<1000	<1000	<1000
total xylenes		4100	3700	<200	<200	540

TABLE C-2. (CONTINUED/PAGE 7)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	13A	13B	13C	14A	14B	14C
		2-3'	3-4'	4-5'	2-3'	3-3.5'	3.5-4.5'
acrolein		<1000	<1000	<1000	<1000	<1000	<1000
acrylonitrile		<1000	<1000	<1000	<1000	<1000	<1000
benzene		140	2200	<200	210	600	<200
carbon tetrachloride		<200	<200	<200	<200	<200	<200
chlorobenzene		1000	5100	<200	1700	3700	<200
1,2-dichloroethane		<200	<200	<200	<200	<200	<200
1,1,1-trichloroethane		<200	<200	<200	<200	<200	<200
1,1-dichloroethane		<200	<200	<200	<200	<200	<200
1,1,2-trichloroethane		<200	<200	<200	<200	<200	<200
1,1,2,2-tetrachloroethane		<200	<200	<200	<200	<200	<200
chloroethane		<200	<200	<200	<200	<200	<200
2-chloroethyl vinyl ether		<1000	<1000	<1000	<1000	<1000	<1000
chloroform		<200	<200	<200	<200	<200	<200
1,1-dichloroethylene		<200	<200	<200	<200	<200	<200
1,2-trans-dichloroethylene		<200	<200	<200	500	<200	<200
1,2-dichloropropane		<200	<200	<200	<200	<200	<200
1,3-dichloropropylene		<200	<200	<200	<200	<200	<200
ethylbenzene		500	1200	<500	410	530	<500
methylene chloride		<500	<500	<500	<500	<500	<500
methyl chloride		<200	<200	<200	<200	<200	<200
methyl bromide		<200	<200	<200	<200	<200	<200
bromoform		<200	<200	<200	<200	<200	<200
dichlorobromomethane		<200	<200	<200	<200	<200	<200
trichlorofluoromethane		<200	<200	<200	<200	<200	<200
dichlorodifluoromethane		<200	<200	<200	<200	<200	<200
chlorodibromomethane		<200	<200	<200	<200	<200	<200
tetrachloroethylene		<200	<200	<200	<200	<200	<200
toluene		300	290	<200	450	550	<200
trichloroethylene		<200	<200	<200	<200	<200	<200
vinyl chloride		<200	<200	<200	<200	<200	<200
acetone		<500	<500	<500	<500	<500	<500
2-butanone		<500	<500	<500	<500	<500	<500
carbon disulfide		<200	<200	<200	<200	<200	<200
2-hexanone		<500	<500	<500	<500	<500	<500
4-methyl-2-pentanone		<500	<500	<500	<500	<500	<500
stryrene		<200	<200	<200	<200	<200	<200
vinyl acetate		<1000	<1000	<1000	<1000	<1000	<1000
total xylenes		2400	1900	<200	2400	1700	<200

TABLE C-2. (CONTINUED/PAGE 8)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	15A	15B	15C	16A	16B	16C
		1.5-2.5'	2.5-3.5'	3.5-4.5'	0.5-1.5'	1.5-2.0'	2-3'
acrolein		<5000	<1000	<1000	<1000	<1000	<1000
acrylonitrile		<5000	<1000	<1000	<1000	<1000	<1000
benzene		6400	470	<200	4200	1400	160
carbon tetrachloride		<1000	<200	<200	<200	<200	<200
chlorobenzene		44000	1500	<200	6100	2300	540
1,2-dichloroethane		<1000	<200	<200	<200	<200	<200
1,1,1-trichloroethane		<1000	<200	<200	<200	<200	<200
1,1-dichloroethane		<1000	<200	<200	<200	<200	<200
1,1,2-trichloroethane		<1000	<200	<200	<200	<200	<200
1,1,2,2-tetrachloroethane		<1000	<200	<200	<200	<200	<200
chloroethane		<1000	<200	<200	<200	<200	<200
2-chloroethyl vinyl ether		<5000	<1000	<1000	<1000	<1000	<1000
chloroform		<1000	<200	<200	<200	<200	<200
1,1-dichloroethylene		<1000	<200	<200	<200	<200	<200
1,2-trans-dichloroethylene		8700	<200	<200	<200	<200	<200
1,2-dichloropropane		<1000	<200	<200	<200	<200	<200
1,3-dichloropropylene		<1000	<200	<200	<200	<200	<200
ethylbenzene		34000	1100	<500	6700	1500	240
methylene chloride		<2500	<500	<500	<500	<500	<500
methyl chloride		<1000	<200	<200	<200	<200	<200
methyl bromide		<1000	<200	<200	<200	<200	<200
bromoform		<1000	<200	<200	<200	<200	<200
dichlorobromomethane		<1000	<200	<200	<200	<200	<200
trichlorofluoromethane		<1000	<200	<200	<200	<200	<200
dichlorodifluoromethane		<1000	<200	<200	<200	<200	<200
chlorodibromomethane		<1000	<200	<200	<200	<200	<200
tetrachloroethylene		46000	<200	<200	<200	<200	<200
toluene		51000	290	<200	6300	130	<200
trichloroethylene		3000	<200	<200	<200	<200	<200
v vinyl chloride		<1000	<200	<200	<200	<200	<200
acetone		<2500	<500	<500	<500	<500	<500
2-butanone		<2500	<500	<500	<500	<500	<500
carbon disulfide		<1000	<200	<200	<200	<200	<200
2-hexanone		<2500	<500	<500	<500	<500	<500
4-methyl-2-pentanone		<2500	<500	<500	<500	<500	<500
stryrene		<1000	<200	<200	<200	<200	<200
vinyl acetate		<5000	<1000	<1000	<1000	<1000	<1000
total xylenes		140000	1600	<200	32000	2100	520

TABLE C-2. (CONTINUED/PAGE 9)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	17A	17B	17C	18A	18B	18C
		2.5-3.5'	3.5-4'	4-5'	2-3'	3-3.5'	3.5-4'
acrolein		<1000	<1000	<1000	<1000	<1000	<1000
acrylonitrile		<1000	<1000	<1000	<1000	<1000	<1000
benzene		4900	<200	180	1200	4700	600
carbon tetrachloride		<200	<200	<200	<200	<200	<200
chlorobenzene		4600	420	<200	400	1300	410
1,2-dichloroethane		<200	<200	<200	<200	<200	<200
1,1,1-trichloroethane		<200	<200	<200	<200	<200	<200
1,1-dichloroethane		<200	<200	<200	<200	<200	<200
1,1,2-trichloroethane		<200	<200	<200	<200	<200	<200
1,1,2,2-tetrachloroethane		<200	<200	<200	<200	<200	<200
chloroethane		<200	<200	<200	<200	<200	<200
2-chloroethyl vinyl ether		<1000	<1000	<1000	<1000	<1000	<1000
chloroform		<200	<200	<200	<200	<200	<200
1,1-dichloroethylene		<200	<200	<200	<200	<200	<200
1,2-trans-dichloroethylene		<200	<200	<200	<200	<200	<200
1,2-dichloropropane		<200	<200	<200	<200	<200	<200
1,3-dichloropropylene		<200	<200	<200	<200	<200	<200
ethylbenzene		2400	230	<500	400	1000	210
methylene chloride		<500	<500	<500	<500	<500	<500
methyl chloride		<200	<200	<200	<200	<200	<200
methyl bromide		<200	<200	<200	<200	<200	<200
bromoform		<200	<200	<200	<200	<200	<200
dichlorobromomethane		<200	<200	<200	<200	<200	<200
trichlorofluoromethane		<200	<200	<200	<200	<200	<200
dichlorodifluoromethane		<200	<200	<200	<200	<200	<200
chlorodibromomethane		<200	<200	<200	<200	<200	<200
tetrachloroethylene		<200	<200	<200	<200	<200	<200
toluene		36000	100	<200	1300	270	110
trichloroethylene		280	<200	<200	<200	<200	<200
vinyl chloride		<200	<200	<200	<200	<200	<200
acetone		<500	<500	<500	<500	<500	<500
2-butanone		<500	<500	<500	<500	<500	<500
carbon disulfide		<200	<200	<200	<200	<200	<200
2-hexanone		<500	<500	<500	<500	<500	<500
4-methyl-2-pentanone		<500	<500	<500	<500	<500	<500
stryrene		<200	<200	<200	<200	<200	<200
vinyl acetate		<1000	<1000	<1000	<1000	<1000	<1000
total xylenes		2000	220	<200	620	1600	330

TABLE C-2. (CONTINUED/PAGE 10)

TABLE C-2. (CONTINUED/PAGE 11)

TABLE C-2. (CONTINUED/PAGE 12)

VOLATILE ORGANIC COMPOUNDS	SAMPLING DATE:	25A	25B	26A	26B
		SAMPLE DEPTH 0-1'	1-2'	0-1'	2-3'
acrolein		<1000	<1000	<1000	<1000
acrylonitrile		<1000	<1000	<1000	<1000
benzene		<200	<200	<200	<200
carbon tetrachloride		<200	<200	<200	<200
chlorobenzene		<200	<200	<200	<200
1,2-dichloroethane		<200	<200	<200	<200
1,1,1-trichloroethane		<200	<200	<200	<200
1,1-dichloroethane		<200	<200	<200	<200
1,1,2-trichloroethane		<200	<200	<200	<200
1,1,2,2-tetrachloroethane		<200	<200	<200	<200
chloroethane		<200	<200	<200	<200
2-chloroethyl vinyl ether		<1000	<1000	<1000	<1000
chloroform		<200	<200	<200	<200
1,1-dichloroethylene		<200	<200	<200	<200
1,2-trans-dichloroethylene		<200	<200	<200	<200
1,2-dichloropropane		<200	<200	<200	<200
1,3-dichloropropylene		<200	<200	<200	<200
ethylbenzene		<500	<500	<500	<500
methylene chloride		<500	<500	<500	<500
methyl chloride		<200	<200	<200	<200
methyl bromide		<200	<200	<200	<200
bromoform		<200	<200	<200	<200
dichlorobromomethane		<200	<200	<200	<200
trichlorofluoromethane		<200	<200	<200	<200
dichlorodifluoromethane		<200	<200	<200	<200
chlorodibromomethane		<200	<200	<200	<200
tetrachloroethylene		<200	<200	<200	<200
toluene		<200	<200	<200	<200
trichloroethylene		<200	<200	<200	<200
vinyl chloride		<200	<200	<200	<200
acetone		<500	<500	<500	<500
2-butanone		<500	<500	<500	<500
carbon disulfide		<200	<200	<200	<200
2-hexanone		<500	<500	<500	<500
4-methyl-2-pentanone		<500	<500	<500	<500
stryrene		<200	<200	<200	<200
vinyl acetate		<1000	<1000	<1000	<1000
total xylenes		<200	<200	<200	<200

TABLE C-2. (CONTINUED/PAGE 13)

VOLATILE ORGANIC COMPOUNDS	SAMPLE DEPTH	TRIP BLANK #1	TRIP BLANK #2	TRIP BLANK #3
		=====	=====	=====
SAMPLING DATE:		1/85	1/85	1/85
acrolein		<100	<100	<100
acrylonitrile		<100	<100	<100
benzene		<5	<5	<5
carbon tetrachloride		<5	<5	<5
chlorobenzene		<5	<5	5.3
1,2-dichloroethane		<5	<5	<5
1,1,1-trichloroethane		<5	<5	<5
1,1-dichloroethane		<5	<5	<5
1,1,2-trichloroethane		<5	<5	<5
1,1,2,2-tetrachloroethane		<10	<10	<10
chloroethane		<10	<10	<10
2-chloroethyl vinyl ether		<10	<10	<10
chloroform		<5	<5	<5
1,1-dichloroethylene		<5	<5	<5
1,2-trans-dichloroethylene		<5	<5	<5
1,2-dichloropropane		<10	<10	<10
1,3-dichloropropylene		<5	<5	<5
ethylbenzene		<5	<5	<5
methylene chloride		<5	6.8	16
methyl chloride		<10	<10	<10
methyl bromide		<10	<10	<10
bromoform		<10	<10	<10
dichlorobromomethane		<5	<5	<5
trichlorofluoromethane		<10	<10	<10
dichlorodifluoromethane		<10	<10	<10
chlorodibromomethane		<5	<5	<5
tetrachloroethylene		<5	<5	<5
toluene		<5	<5	<5
trichloroethylene		<5	<5	<5
vinyl chloride		<10	<10	<10
acetone		<5	<5	<5
2-butanone		<5	<5	<5
carbon disulfide		<5	<5	<5
2-hexanone		<5	<5	<5
4-methyl-2-pentanone		<5	<5	<5
stryrene		<5	<5	<5
vinyl acetate		<5	<5	<5
total xylenes		<5	<5	<5

TABLE C-2. (CONTINUED/PAGE 14)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	1A	1B	1C	2A	2B	2C
		1-2'	2-3'	5-6'	2-3'	3-4'	6-7'
acenaphthene		<8000	<2000	280	<4000	<4000	<2000
benzidine		<32000	<8000	<800	<16000	<16000	<8000
1,2,4-trichlorobenzene		<8000	<2000	<200	<4000	<4000	<2000
hexachlorobenzene		<8000	<2000	<200	<4000	<4000	<2000
hexachloroethane		<8000	<2000	<200	<4000	<4000	<2000
bis(2-chloroethyl)ether		<8000	<2000	<200	<4000	<4000	<2000
2-chloronaphthalene		<8000	<2000	<200	<4000	<4000	<2000
1,2-dichlorobenzene		19000	<2000	<200	<4000	<4000	<2000
1,3-dichlorobenzene		<8000	<2000	<200	<4000	<4000	<2000
1,4-dichlorobenzene		8000	<2000	<200	<4000	<4000	<2000
3,3'-dichlorobenzidine		<16000	<4000	<400	<8000	<8000	<4000
2,4-dinitrotoluene		<16000	<4000	<400	<8000	<8000	<4000
2,6-dinitrotoluene		<16000	<4000	<400	<8000	<8000	<4000
1,2-diphenylhydrazine (as azobenzene)		<16000	<4000	<400	<8000	<8000	<4000
fluoranthene		<8000	<2000	13000	<4000	<4000	<2000
4-chlorophenyl phenyl ether		<8000	<2000	<200	<4000	<4000	<2000
4-bromophenyl phenyl ether		<8000	<2000	<200	<4000	<4000	<2000
bis(2-chloroisopropyl) ether		<16000	<4000	<400	<8000	<8000	<4000
bis(2-chloroethoxy) methane		<16000	<4000	<400	<8000	<8000	<4000
hexachlorobutadiene		<8000	<2000	<200	<4000	<4000	<2000
hexachlorocyclopentadiene		<8000	<2000	<200	<4000	<4000	<2000
isophorone		<8000	<2000	<200	<4000	<4000	<2000
naphthalene		<8000	1000	<200	2000	<4000	<2000
nitrobenzene		<8000	<2000	<200	<4000	<4000	<2000
N-nitrosodiphenylamine		<8000	<2000	<200	<4000	<4000	<2000
N-nitrosodi-n-propylamine		<8000	<2000	<200	<4000	<4000	<2000
bis(2-ethylhexyl) phthalate		<8000	<2000	2300	<4000	<4000	<2000
butyl benzyl phthalate		<8000	<2000	<200	<4000	<4000	<2000
di-n-butyl phthalate		<8000	<2000	<200	<4000	<4000	<2000
di-n-octyl phthalate		<8000	<2000	<200	<4000	<4000	<2000
diethyl phthalate		<8000	<2000	<200	<4000	<4000	<2000
dimethyl phthalate		<8000	<2000	<200	<4000	<4000	<2000
benzo(a)anthracene		<8000	<2000	4500	<4000	<4000	<2000
benzo(a)pyrene		<16000	<4000	4400	<8000	<8000	<4000
3,4-benzofluoranthene		<16000	<4000	9500	<8000	<8000	<4000
benzo(k)fluoranthene		<16000	<4000	9500	<8000	<8000	<4000
chrysene		<16000	<4000	6100	<8000	<8000	<4000
acenaphthylene		<8000	<2000	840	<4000	<4000	<2000
anthracene		<8000	<2000	1100	<4000	<4000	<2000
benzo(ghi)perylene		<16000	<4000	930	<8000	<8000	<4000
fluorene		<8000	<2000	150	<4000	<4000	<2000
phenanthrene		<8000	<2000	3100	<4000	<4000	<2000
dibenzo(a,h)anthracene		<16000	<4000	230	<8000	<8000	<4000
indeno(1,2,3-cd)pyrene		<16000	<4000	1200	<8000	<8000	<4000
pyrene		<8000	<2000	9300	<4000	<4000	<2000

TABLE C-2. (CONTINUED/PAGE 15)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	3A	3B	3C	4A	4B	4C
		1-2'	2,5-3'	5-6'	2-3'	3-4'	5-6'
acenaphthene		<8000	<8000	<1000	<2000	<4000	<1000
benzidine		<32000	<32000	<4000	<8000	<16000	<4000
1,2,4-trichlorobenzene		14000	<8000	<1000	<2000	2500	<1000
hexachlorobenzene		<8000	<8000	<1000	<2000	<4000	<1000
hexachloroethane		<8000	<8000	<1000	<2000	<4000	<1000
bis(2-chloroethyl)ether		<8000	<8000	<1000	<2000	<4000	<1000
2-chloronaphthalene		<8000	<8000	<1000	<2000	<4000	<1000
1,2-dichlorobenzene		4000	<8000	<1000	<2000	2500	<1000
1,3-dichlorobenzene		<8000	<8000	<1000	<2000	<4000	<1000
1,4-dichlorobenzene		4400	<8000	<1000	<2000	2000	<1000
3,3'-dichlorobenzidine		<16000	<16000	<2000	<4000	<8000	<2000
2,4-dinitrotoluene		<16000	<16000	<2000	<4000	<8000	<2000
2,6-dinitrotoluene		<16000	<16000	<2000	<4000	<8000	<2000
1,2-diphenylhydrazine (as azobenzene)		<16000	<16000	<2000	<4000	<8000	<2000
fluoranthene		<8000	<8000	<1000	<2000	<4000	<1000
4-chlorophenyl phenyl ether		<8000	<8000	<1000	<2000	<4000	<1000
4-bromophenyl phenyl ether		<8000	<8000	<1000	<2000	<4000	<1000
bis (2-chloroisopropyl) ether		<16000	<16000	<2000	<4000	<8000	<2000
bis (2-chloroethoxy) methane		<16000	<16000	<2000	<4000	<8000	<2000
hexachlorobutadiene		<8000	<8000	<1000	<2000	<4000	<1000
hexachlorocyclopentadiene		<8000	<8000	<1000	<2000	<4000	<1000
isophorone		<8000	<8000	<1000	<2000	<4000	<1000
naphthalene		<8000	<8000	<1000	<2000	<4000	<1000
nitrobenzene		<8000	<8000	<1000	<2000	<4000	<1000
N-nitrosodiphenylamine		<8000	<8000	<1000	<2000	<4000	<1000
N-nitrosodi-n-propylamine		<8000	<8000	<1000	<2000	<4000	<1000
bis (2-ethylhexyl) phthalate		<8000	<8000	3800	<2000	2200	<1000
butyl benzyl phthalate		<8000	<8000	<1000	<2000	<4000	<1000
di-n-butyl phthalate		<8000	<8000	<1000	<2000	<4000	<1000
di-n-octyl phthalate		<8000	<8000	<1000	<2000	<4000	<1000
diethyl phthalate		<8000	<8000	<1000	<2000	<4000	<1000
dimethyl phthalate		<8000	<8000	<1000	<2000	<4000	<1000
benzo(a)anthracene		<8000	<8000	<1000	<2000	<4000	<1000
benzo(a)pyrene		<16000	<16000	<2000	<4000	<8000	<2000
3,4-benzofluoranthene		<16000	<16000	<2000	<4000	<8000	<2000
benzo(k)fluoranthene		<16000	<16000	<2000	<4000	<8000	<2000
chrysene		<16000	<16000	<2000	<4000	<8000	<2000
acenaphthylene		<8000	<8000	<1000	<2000	<4000	<1000
anthracene		4400	<8000	<1000	<2000	<4000	<1000
benzo(ghi) perylene		<16000	<16000	<2000	<4000	<8000	<2000
fluorene		<8000	<8000	<1000	<2000	<4000	<1000
phenanthrene		<8000	<8000	<1000	<2000	<4000	<1000
dibenzo(a,h)anthracene		<16000	<16000	<2000	<4000	<8000	<2000
indeno(1,2,3-cd)pyrene		<16000	<16000	<2000	<4000	<8000	<2000
pyrene		<8000	<8000	<1000	<2000	<4000	<1000

TABLE C-2. (CONTINUED/PAGE 16)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	5A	5B	5C	6A	6B	6C
		1-2'	3-4'	5-6'	1-2'	3-4'	6-7'
acenaphthene		<2000	<1000	<200	<8000	<8000	<200
benzidine		<8000	<4000	<800	<32000	<32000	<800
1,2,4-trichlorobenzene		<2000	<1000	<200	<8000	<8000	<200
hexachlorobenzene		<2000	<1000	<200	<8000	<8000	<200
hexachloroethane		<2000	<1000	<200	<8000	<8000	<200
bis(2-chloroethyl)ether		<2000	<1000	<200	<8000	<8000	<200
2-chloronaphthalene		<2000	<1000	<200	<8000	<8000	<200
1,2-dichlorobenzene		<2000	<1000	<200	<8000	<8000	<200
1,3-dichlorobenzene		<2000	<1000	<200	<8000	<8000	<200
1,4-dichlorobenzene		<2000	<1000	<200	<8000	<8000	<200
3,3'-dichlorobenzidine		<4000	<2000	<400	<16000	<16000	<400
2,4-dinitrotoluene		<4000	<2000	<400	<16000	<16000	<400
2,6-dinitrotoluene		<4000	<2000	<400	<16000	<16000	<400
1,2-diphenylhydrazine (as azobenzene)		<4000	<2000	<400	<16000	<16000	<400
fluoranthene		<2000	<1000	<200	<8000	<8000	<200
4-chlorophenyl phenyl ether		<2000	<1000	<200	<8000	<8000	<200
4-bromophenyl phenyl ether		<2000	<1000	<200	<8000	<8000	<200
bis (2-chloroisopropyl) ether		<4000	<2000	<400	<16000	<16000	<400
bis (2-chloroethoxy) methane		<4000	<2000	<400	<16000	<16000	<400
hexachlorobutadiene		<2000	<1000	<200	<8000	<8000	<200
hexachlorocyclopentadiene		<2000	<1000	<200	<8000	<8000	<200
isophorone		<2000	<1000	<200	<8000	<8000	<200
naphthalene		<2000	<1000	<200	<8000	<8000	<200
nitrobenzene		<2000	<1000	<200	<8000	<8000	<200
N-nitrosodiphenylamine		<2000	<1000	<200	<8000	<8000	<200
N-nitrosodi-n-propylamine		<2000	<1000	<200	<8000	<8000	<200
bis (2-ethylhexyl) phthalate		<2000	<1000	<200	<8000	<8000	310
butyl benzyl phthalate		<2000	<1000	<200	<8000	<8000	<200
di-n-butyl phthalate		<2000	<1000	<200	<8000	<8000	340
di-n-octyl phthalate		<2000	<1000	<200	<8000	<8000	<200
diethyl phthalate		<2000	<1000	<200	<8000	<8000	<200
dimethyl phthalate		<2000	<1000	<200	<8000	<8000	<200
benzo(a)anthracene		<2000	<1000	<200	<8000	<8000	<200
benzo(a)pyrene		<4000	<2000	<400	<16000	<16000	<400
3,4-benzo fluoranthene		<4000	<2000	<400	<16000	<16000	<400
benzo(k)fluoranthene		<4000	<2000	<400	<16000	<16000	<400
chrysene		<4000	<2000	<400	<16000	<16000	<400
acenaphthylene		<2000	<1000	<200	<8000	<8000	<200
anthracene		<2000	<1000	<200	<8000	<8000	<200
benzo(ghi) perlylene		<4000	<2000	<400	<16000	<16000	<400
fluorene		<2000	<1000	<200	<8000	<8000	<200
phenanthrene		<2000	<1000	<200	<8000	<8000	<200
dibenzo(a,h)anthracene		<4000	<2000	<400	<16000	<16000	<400
indeno(1,2,3-cd)pyrene		<4000	<2000	<400	<16000	<16000	<400
pyrene		<2000	<1000	<200	<8000	<8000	<200

TABLE C-2. (CONTINUED/PAGE 17)

SAMPLE DEPTH	7A	7B	7C	8A	8B	8C
	2-3'	3-4'	4-5'	2-3'	3-3.5'	5-6'
BASE/NEUTRAL COMPOUNDS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85
acenaphthene	<20000	<20000	<2000	<1000	<800	<200
benzidine	<80000	<80000	<8000	<4000	<3200	<800
1,2,4-trichlorobenzene	<20000	<20000	<2000	<1000	<800	<200
hexachlorobenzene	<20000	<20000	<2000	<1000	<800	<200
hexachloroethane	<20000	<20000	<2000	<1000	<800	<200
bis(2-chloroethyl)ether	<20000	<20000	<2000	<1000	<800	<200
2-chloronaphthalene	<20000	<20000	<2000	<1000	<800	<200
1,2-dichlorobenzene	<20000	<20000	<2000	3000	1500	<200
1,3-dichlorobenzene	<20000	<20000	<2000	<1000	<800	<200
1,4-dichlorobenzene	<20000	<20000	<2000	<1000	<800	<200
3,3'-dichlorobenzidine	<40000	<40000	<4000	<2000	<1600	<400
2,4-dinitrotoluene	<40000	<40000	<4000	<2000	<1600	<400
2,6-dinitrotoluene	<40000	<40000	<4000	<2000	<1600	<400
1,2-diphenylhydrazine (as azobenzene)	<40000	<40000	<4000	<2000	<1600	<400
fluoranthene	<20000	<20000	<2000	<1000	<800	<200
4-chlorophenyl phenyl ether	<20000	<20000	<2000	<1000	<800	<200
4-bromophenyl phenyl ether	<20000	<20000	<2000	<1000	<800	<200
bis(2-chloroisopropyl) ether	<40000	<40000	<4000	<2000	<1600	<400
bis(2-chloroethoxy) methane	<40000	<40000	<4000	<2000	<1600	<400
hexachlorobutadiene	<20000	<20000	<2000	<1000	<800	<200
hexachlorocyclopentadiene	<20000	<20000	<2000	<1000	<800	<200
isophorone	<20000	<20000	<2000	<1000	<800	<200
naphthalene	<20000	<20000	<2000	<1000	<800	<200
nitrobenzene	<20000	<20000	<2000	<1000	<800	<200
N-nitrosodiphenylamine	<20000	<20000	<2000	<1000	<800	<200
N-nitrosodi-n-propylamine	<20000	<2000	<2000	<1000	<800	<200
bis(2-ethylhexyl) phthalate	<20000	<20000	<2000	<1000	<800	170
butyl benzyl phthalate	<20000	<20000	<2000	<1000	<800	<200
di-n-butyl phthalate	<20000	<20000	1100	<1000	1100	140
di-n-octyl phthalate	<20000	<20000	<2000	<1000	<800	<200
diethyl phthalate	<20000	<20000	<2000	<1000	<800	<200
dimethyl phthalate	<20000	<20000	<2000	<1000	<800	<200
benzo(a)anthracene	<20000	<20000	<2000	<1000	<800	<200
benzo(a)pyrene	<40000	<40000	<4000	<2000	<1600	<400
3,4-benzofluoranthene	<40000	<40000	<4000	<2000	<1600	<400
benzo(k)fluoranthene	<40000	<40000	<4000	<2000	<1600	<400
chrysene	<40000	<40000	<4000	<2000	<1600	<400
acenaphthylene	<20000	<20000	<2000	<1000	<800	<200
anthracene	<20000	<20000	<2000	<1000	<800	<200
benzo(ghi)perylene	<40000	<40000	<4000	<2000	<1600	<400
fluorene	<20000	<20000	<2000	<1000	<800	<200
phenanthrene	<20000	<20000	<2000	<1000	<800	<200
dibenzo(a,h)anthracene	<40000	<40000	<4000	<2000	<1600	<400
indeno(1,2,3-cd)pyrene	<40000	<40000	<4000	<2000	<1600	<400
pyrene	<20000	<20000	<2000	<1000	<800	<200

TABLE C-2. (CONTINUED/PAGE 18)

SAMPLE DEPTH	9A	9B	9C	10A	10B	10C
	2-3'	3-4'	5-6'	2-3'	3-3.5'	3.5-4'
BASE/NEUTRAL COMPOUNDS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85
acenaphthene	<7400	<2000	<200	<7600	<200	<200
benzidine	<29600	<8000	<800	<30000	<800	<800
1,2,4-trichlorobenzene	<7400	<2000	<200	15000	120	<200
hexachlorobenzene	<7400	<2000	<200	<7600	<200	<200
hexachloroethane	<7400	<2000	<200	<7600	<200	<200
bis(2-chloroethyl)ether	<7400	<2000	<200	<7600	<200	<200
2-chloronaphthalene	<7400	<2000	<200	<7600	<200	<200
1,2-dichlorobenzene	5600	1200	<200	7300	1200	<200
1,3-dichlorobenzene	<7400	<2000	<200	<7600	<200	<200
1,4-dichlorobenzene	3700	<2000	<200	<7600	430	<200
3,3'-dichlorobenzidine	<15000	<4000	<400	<15000	<400	<400
2,4-dinitrotoluene	<15000	<4000	<400	<15000	<400	<400
2,6-dinitrotoluene	<15000	<4000	<400	<15000	<400	<400
1,2-diphenylhydrazine (as azobenzene)	<15000	<4000	<400	<15000	<400	<400
fluoranthene	<7400	<2000	<200	<7600	<200	<200
4-chlorophenyl phenyl ether	<7400	<2000	<200	<7600	<200	<200
4-bromophenyl phenyl ether	<7400	<2000	<200	<7600	<200	<200
bis (2-chloroisopropyl) ether	<15000	<4000	<400	<15000	<400	<400
bis (2-chloroethoxy) methane	<15000	<4000	<400	<15000	<400	<400
hexachlorobutadiene	<7400	<2000	<200	<7600	<200	<200
hexachlorocyclopentadiene	<7400	<2000	<200	<7600	<200	<200
isophorone	<7400	<2000	<200	<7600	<200	<200
naphthalene	<7400	<2000	<200	<7600	<200	<200
nitrobenzene	<7400	<2000	<200	<7600	<200	<200
N-nitrosodiphenylamine	<7400	<2000	<200	<7600	<200	<200
N-nitrosodi-n-propylamine	<7400	<2000	<200	<7600	<200	<200
bis (2-ethylhexyl) phthalate	<7400	<2000	<200	27000	<200	<200
butyl benzyl phthalate	<7400	<2000	<200	<7600	<200	<200
di-n-butyl phthalate	<7400	<2000	4900	<7600	5900	<200
di-n-octyl phthalate	<7400	<2000	<200	<7600	<200	<200
diethyl phthalate	<7400	<2000	<200	<7600	<200	<200
dimethyl phthalate	<7400	<2000	<200	<7600	<200	<200
benzo(a)anthracene	<7400	<2000	<200	<7600	<200	<200
benzo(a)pyrene	<15000	<4000	<400	<15000	<400	<400
3,4-benzofluoranthene	<15000	<4000	<400	<15000	<400	<400
benzo(k)fluoranthene	<15000	<4000	<400	<15000	<400	<400
chrysene	<15000	<4000	<400	<15000	<400	<400
acenaphthylene	<7400	<2000	<200	<7600	<200	<200
anthracene	<7400	<2000	<200	<7600	<200	<200
benzo(ghi)perylene	<15000	<4000	<400	<15000	<400	<400
fluorene	<7400	<2000	<200	<7600	<200	<200
phenanthrene	<7400	<2000	<200	<7600	<200	<200
dibenzo(a,h)anthracene	<15000	<4000	<400	<15000	<400	<400
indeno(1,2,3-cd)pyrene	<15000	<4000	<400	<15000	<400	<400
pyrene	<7400	<2000	<200	<7600	<200	<200

TABLE C-2. (CONTINUED/PAGE 19)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	11A	11B	11C	12A	12B
		2-3'	3-3.5'	3.5-4'	1-2'	2-3'
acenaphthene		<7600	<2000	<200	<1000	<200
benzidine		<30000	<8000	<800	<4000	<800
1,2,4-trichlorobenzene		<7600	<2000	<200	<1000	<200
hexachlorobenzene		<7600	<2000	<200	<1000	<200
hexachloroethane		<7600	<2000	<200	<1000	<200
bis(2-chloroethyl)ether		<7600	<2000	<200	<1000	<200
2-chloronaphthalene		<7600	<2000	<200	<1000	<200
1,2-dichlorobenzene		10000	1400	<200	14000	670
1,3-dichlorobenzene		<7600	1050	<200	<1000	<200
1,4-dichlorobenzene		<7600	1700	<200	<1000	<200
3,3'-dichlorobenzidine		<15000	<4000	<400	<2000	<400
2,4-dinitrotoluene		<15000	<4000	<400	<2000	<400
2,6-dinitrotoluene		<15000	<4000	<400	<2000	<400
1,2-diphenylhydrazine (as azobenzene)		<15000	<4000	<400	<2000	<400
fluoranthene		<7600	<2000	<200	<1000	<200
4-chlorophenyl phenyl ether		<7600	<2000	<200	<1000	<200
4-bromophenyl phenyl ether		<7600	<2000	<200	<1000	<200
bis (2-chloroisopropyl) ether		<15000	<4000	<400	<2000	<400
bis (2-chloroethoxy) methane		<15000	<4000	<400	<2000	<400
hexachlorobutadiene		<7600	<2000	<200	<1000	<200
hexachlorocyclopentadiene		<7600	<2000	<200	<1000	<200
isophorone		<7600	<2000	<200	<1000	<200
naphthalene		<7600	<2000	<200	<1000	<200
nitrobenzene		<7600	<2000	<200	<1000	<200
N-nitrosodiphenylamine		<7600	<2000	<200	<1000	<200
N-nitrosodi-n-propylamine		<7600	<2000	<200	<1000	<200
bis (2-ethylhexyl) phthalate		42000	<2000	<200	<1000	<200
butyl benzyl phthalate		<7600	<2000	<200	<1000	<200
di-n-butyl phthalate		<7600	<2000	12000	<1000	180
di-n-octyl phthalate		<7600	<2000	<200	<1000	<200
diethyl phthalate		<7600	<2000	<200	<1000	<200
dimethyl phthalate		<7600	<2000	<200	<1000	<200
benzo(a)anthracene		<7600	<2000	<200	<1000	<200
benzo(a)pyrene		<15000	<4000	<400	<2000	<400
3,4-benzofluoranthene		<15000	<4000	<400	<2000	<400
benzo(k)fluoranthene		<15000	<4000	<400	<2000	<400
chrysene		<15000	<4000	<400	<2000	<400
acenaphthylene		<7600	<2000	<200	<1000	<200
anthracene		<7600	<2000	<200	<1000	<200
benzo(ghi) perylene		<15000	<4000	<400	<2000	<400
fluorene		<7600	<2000	<200	<1000	<200
phenanthrene		<7600	<2000	<200	<1000	<200
dibenzo(a,h)anthracene		<15000	<4000	<400	<2000	<400
indeno(1,2,3-cd)pyrene		<15000	<4000	<400	<2000	<400
Pyrene		<7600	<2000	<200	<1000	<200

TABLE C-2. (CONTINUED/PAGE 20)

BASE/NEUTRAL COMPOUNDS	SAMPLING DATE:	13A	13B	13C	14A	14B	14C
		SAMPLE DEPTH 2-3'	3-4'	4-5'	2-3'	3-3.5'	3.5-4.5'
acenaphthene		<4000	<2000	<200	<400	<3600	<200
benzidine		<16000	<8000	<800	<1600	<14000	<800
1,2,4-trichlorobenzene		3200	<2000	<200	<400	<3600	<200
hexachlorobenzene		<4000	<2000	<200	<400	<3600	<200
hexachloroethane		<4000	<2000	<200	<400	<3600	<200
bis(2-chloroethyl)ether		<4000	<2000	<200	<400	<3600	<200
2-chloronaphthalene		<4000	<2000	<200	<400	<3600	<200
1,2-dichlorobenzene		3600	2100	<200	1400	23000	<200
1,3-dichlorobenzene		<4000	1600	<200	<400	1800	<200
1,4-dichlorobenzene		<4000	3100	<200	320	3700	<200
3,3'-dichlorobenzidine		<8000	<4000	<400	<800	<7200	<400
2,4-dinitrotoluene		<8000	<4000	<400	<800	<7200	<400
2,6-dinitrotoluene		<8000	<4000	<400	<800	<7200	<400
1,2-diphenylhydrazine (as azobenzene)		<8000	<4000	<400	<800	<7200	<400
fluoranthene		<4000	<2000	<200	<400	<3600	<200
4-chlorophenyl phenyl ether		<4000	<2000	<200	<400	<3600	<200
4-bromophenyl phenyl ether		<4000	<2000	<200	<400	<3600	<200
bis (2-chloroisopropyl) ether		<8000	<4000	<400	<800	<7200	<400
bis (2-chloroethoxy) methane		<8000	<4000	<400	<800	<7200	<400
hexachlorobutadiene		<4000	<2000	<200	<400	<3600	<200
hexachlorocyclopentadiene		<4000	<2000	<200	<400	<3600	<200
isophorone		<4000	<2000	<200	<400	<3600	<200
naphthalene		<4000	<2000	<200	<400	<3600	<200
nitrobenzene		<4000	<2000	<200	<400	<3600	<200
N-nitrosodiphenylamine		<4000	<2000	<200	<400	<3600	<200
N-nitrosodi-n-propylamine		<4000	<2000	<200	<400	<3600	<200
bis (2-ethylhexyl) phthalate		<4000	<2000	<200	<400	<3600	<200
butyl benzyl phthalate		<4000	<2000	<200	<400	<3600	<200
di-n-butyl phthalate		<4000	<2000	<200	<400	<3600	12000
di-n-octyl phthalate		<4000	<2000	<200	<400	<3600	<200
diethyl phthalate		<4000	<2000	<200	<400	<3600	<200
dimethyl phthalate		<4000	<2000	<200	<400	<3600	<200
benzo(a)anthracene		<4000	<2000	<200	<400	<3600	<200
benzo(a)pyrene		<8000	<4000	<400	<800	<7200	<400
3,4-benzofluoranthene		<8000	<4000	<400	<800	<7200	<400
benzo(k)fluoranthene		<8000	<4000	<400	<800	<7200	<400
chrysene		<8000	<4000	<400	<800	<7200	<400
acenaphthylene		<4000	<2000	<200	<400	<3600	<200
anthracene		<4000	<2000	<200	<400	<3600	<200
benzo(ghi)perylene		<8000	<4000	<400	<800	<7200	<400
fluorene		<4000	<2000	<200	<400	<3600	<200
phenanthrene		<4000	<2000	<200	<400	<3600	<200
dibenzo(a,h)anthracene		<8000	<4000	<400	<800	<7200	<400
indeno(1,2,3-cd)pyrene		<8000	<4000	<400	<800	<7200	<400
pyrene		<4000	<2000	<200	<400	<3600	<200

TABLE C-2. (CONTINUED/PAGE 21)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	15A 1.5-2.5'	15B 2.5-3.5'	15C 3.5-4.5'	16A 0.5-1.5'	16B 1.5-2.0'	16C 2-3'
		1/85	1/85	1/85	1/85	1/85	1/85
acenaphthene		<20000	<1000	<200	<20000	<200	<200
benzidine		<20000	<4000	<800	<20000	<800	<800
1,2,4-trichlorobenzene		69000	<1000	<200	<20000	<200	<200
hexachlorobenzene		<20000	<1000	<200	<20000	<200	<200
hexachloroethane		<20000	<1000	<200	<20000	<200	<200
bis(2-chloroethyl)ether		<20000	<1000	<200	<20000	<200	<200
2-chloronaphthalene		<20000	<1000	<200	<20000	<200	<200
1,2-dichlorobenzene		73000	650	<200	31000	190	<200
1,3-dichlorobenzene		<20000	<1000	<200	<20000	200	<200
1,4-dichlorobenzene		65000	650	<200	<20000	290	<200
3,3'-dichlorobenzidine		<40000	<2000	<400	<40000	<400	<400
2,4-dinitrotoluene		<40000	<2000	<400	<40000	<400	<400
2,6-dinitrotoluene		<40000	<2000	<400	<40000	<400	<400
1,2-diphenylhydrazine (as azobenzene)		<40000	<2000	<400	<40000	<400	<400
fluoranthene		<20000	<1000	<200	<20000	<200	<200
4-chlorophenyl phenyl ether		<20000	<1000	<200	<20000	<200	<200
4-bromophenyl phenyl ether		<20000	<1000	<200	<20000	<200	<200
bis (2-chloroisopropyl) ether		<40000	<2000	<400	<40000	<400	<400
bis (2-chloroethoxy) methane		<40000	<2000	<400	<40000	<400	<400
hexachlorobutadiene		<20000	<1000	<200	<20000	<200	<200
hexachlorocyclopentadiene		<20000	<1000	<200	<20000	<200	<200
isophorone		<20000	<1000	<200	<20000	<200	<200
naphthalene		19000	550	<200	<20000	<200	<200
nitrobenzene		<20000	<1000	<200	<20000	<200	<200
N-nitrosodiphenylamine		<20000	<1000	<200	<20000	<200	<200
N-nitrosodi-n-propylamine		<20000	<1000	<200	<20000	<200	<200
bis (2-ethylhexyl) phthalate		<20000	<1000	<200	51000	410	2600
butyl benzyl phthalate		<20000	<1000	<200	<20000	<200	<200
di-n-butyl phthalate		<20000	<1000	<200	<20000	240	9900
di-n-octyl phthalate		<20000	<1000	<200	<20000	<200	<200
diethyl phthalate		<20000	<1000	<200	<20000	<200	<200
dimethyl phthalate		<20000	<1000	<200	<20000	<200	<200
benzo(a)anthracene		<20000	<1000	<200	<20000	<200	<200
benzo(a)pyrene		<40000	<2000	<400	<40000	<400	<400
3,4-benzofluoranthene		<40000	<2000	<400	<40000	<400	<400
benzo(k)fluoranthene		<40000	<2000	<400	<40000	<400	<400
chrysene		<40000	<2000	<400	<40000	<400	<400
acenaphthylene		<20000	<1000	<200	<20000	<200	<200
anthracene		<20000	<1000	<200	<20000	<200	<200
benzo(ghi) perylene		<40000	<2000	<400	<40000	<400	<400
fluorene		<20000	<1000	<200	<20000	<200	<200
phenanthrene		<20000	<1000	<200	<20000	<200	<200
dibenzo(a,h)anthracene		<40000	<2000	<400	<40000	<400	<400
indeno(1,2,3-cd)pyrene		<40000	<2000	<400	<40000	<400	<400
pyrene		<20000	<1000	<200	<20000	<200	<200

TABLE C-2. (CONTINUED/PAGE 22)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	17A	17B	17C	18A	18B	18C
		2.5-3.5'	3.5-4'	4-5'	2-3'	3-3.5'	3.5-4'
acenaphthene		<1000	<2000	<200	<800	<800	<2000
benzidine		<4000	<8000	<800	<3200	<3200	<8000
1,2,4-trichlorobenzene		<1000	<2000	<200	<800	<800	<2000
hexachlorobenzene		<1000	<2000	<200	<800	<800	<2000
hexachloroethane		<1000	<2000	<200	<800	<800	<2000
bis(2-chloroethyl)ether		<1000	<2000	<200	<800	<800	<2000
2-chloronaphthalene		<1000	<2000	<200	<800	<800	<2000
1,2-dichlorobenzene		65000	7300	5400	18000	<800	1900
1,3-dichlorobenzene		<1000	1100	170	<800	<800	<2000
1,4-dichlorobenzene		580	2200	<200	<800	<800	<2000
3,3'-dichlorobenzidine		<2000	<4000	<400	<1600	<1600	<4000
2,4-dinitrotoluene		<2000	<4000	<400	<1600	<1600	<4000
2,6-dinitrotoluene		<2000	<4000	<400	<1600	<1600	<4000
1,2-diphenylhydrazine (as azobenzene)		<2000	<4000	<400	<1600	<1600	<4000
fluoranthene		<1000	<2000	<200	<800	<800	<2000
4-chlorophenyl phenyl ether		<1000	<2000	<200	<800	<800	<2000
4-bromophenyl phenyl ether		<1000	<2000	<200	<800	<800	<2000
bis (2-chloroisopropyl) ether		<2000	<4000	<400	<1600	<1600	<4000
bis (2-chloroethoxy) methane		<2000	<4000	<400	<1600	<1600	<4000
hexachlorobutadiene		<1000	<2000	<200	<800	<800	<2000
hexachlorocyclopentadiene		<1000	<2000	<200	<800	<800	<2000
isophorone		<1000	<2000	<200	<800	<800	<2000
naphthalene		<1000	<2000	<200	<800	<800	<2000
nitrobenzene		<1000	<2000	<200	<800	<800	<2000
N-nitrosodiphenylamine		<1000	<2000	<200	<800	<800	<2000
N-nitrosodi-n-propylamine		<1000	<2000	<200	<800	<800	<2000
bis (2-ethylhexyl) phthalate		2000	9000	1200	3400	600	4300
butyl benzyl phthalate		<1000	<2000	<200	<800	<800	<2000
di-n-butyl phthalate		1200	14000	7300	700	480	<2000
di-n-octyl phthalate		<1000	<2000	<200	<800	<800	<2000
diethyl phthalate		<1000	<2000	<200	<800	<800	<2000
dimethyl phthalate		<1000	<2000	<200	<800	<800	<2000
benzo(a)anthracene		<1000	<2000	<200	<800	<800	<2000
benzo(a)pyrene		<2000	1100	860	<1600	<1600	<4000
3,4-benzo fluoranthene		<2000	<4000	<400	<1600	<1600	<4000
benzo(k)fluoranthene		<2000	<4000	<400	<1600	<1600	<4000
chrysene		<2000	<4000	<400	<1600	<1600	<4000
acenaphthylene		<1000	<2000	<200	<800	<800	<2000
anthracene		<1000	<2000	<200	<800	<800	<2000
benzo(ghi)perylene		<2000	<4000	<400	<1600	<1600	<4000
fluorene		<1000	<2000	<200	<800	<800	<2000
phenanthrene		<1000	<2000	<200	<800	<800	<2000
dibenzo(a,h)anthracene		<2000	<4000	<400	<1600	<1600	<4000
indeno(1,2,3-cd)pyrene		<2000	<4000	<400	<1600	<1600	<4000
pyrene		<1000	<2000	<200	<800	<800	<2000

TABLE C-2. (CONTINUED/PAGE 23)

BASE/NEUTRAL COMPOUNDS	SAMPLE DEPTH	19A	19B	20A	20B	21A	21B
		1-2'	2-3'	1-2'	2-3'	0-1'	2-3'
acenaphthene		<200	<200	<200	<200	<400	<200
benzidine		<800	<800	<800	<800	<1600	<800
1,2,4-trichlorobenzene		<200	<200	<200	<200	<400	<200
hexachlorobenzene		<200	<200	<200	<200	1100	<200
hexachloroethane		<200	<200	<200	<200	<400	<200
bis(2-chloroethyl)ether		<200	<200	<200	<200	<400	<200
2-chloronaphthalene		<200	<200	<200	<200	<400	<200
1,2-dichlorobenzene		<200	<200	400	370	<400	<200
1,3-dichlorobenzene		<200	<200	100	<200	<400	<200
1,4-dichlorobenzene		<200	<200	90	<200	<400	<200
3,3'-dichlorobenzidine		<400	<400	<400	<400	<800	<400
2,4-dinitrotoluene		<400	<400	<400	<400	<800	<400
2,6-dinitrotoluene		<400	<400	<400	<400	<800	<400
1,2-diphenylhydrazine (as azobenzene)		<400	<400	<400	<400	<800	<400
fluoranthene		<200	<200	140	<200	340	<200
4-chlorophenyl phenyl ether		<200	<200	<200	<200	<400	<200
4-bromophenyl phenyl ether		<200	<200	<200	<200	<400	<200
bis(2-chloroisopropyl) ether		<400	<400	<400	<400	<800	<400
bis(2-chloroethoxy) methane		<400	<400	<400	<400	<800	<400
hexachlorobutadiene		<200	<200	<200	<200	<400	<200
hexachlorocyclopentadiene		<200	<200	<200	<200	<400	<200
isophorone		<200	<200	<200	<200	<400	<200
naphthalene		<200	<200	<200	<200	<400	<200
nitrobenzene		<200	<200	<200	<200	<400	<200
N-nitrosodiphenylamine		<200	<200	<200	<200	<400	<200
N-nitrosodi-n-propylamine		<200	<200	<200	<200	<400	<200
bis(2-ethylhexyl) phthalate		<200	1300	830	<200	50000	<200
butyl benzyl phthalate		<200	<200	<200	<200	<400	<200
di-n-butyl phthalate		22000	19000	12000	6200	14000	<200
di-n-octyl phthalate		<200	<200	<200	<200	<400	<200
diethyl phthalate		<200	<200	<200	<200	<400	<200
dimethyl phthalate		<200	<200	<200	<200	<400	<200
benzo(a)anthracene		<200	<200	90	<200	360	<200
benzo(a)pyrene		<400	<400	100	<400	220	<400
3,4-benzofluoranthene		<400	<400	130	<400	360	<400
benzo(k)fluoranthene		<400	<400	130	<400	360	<400
chrysene		<400	<400	100	<400	220	<400
acenaphthylene		<200	<200	<200	<200	<400	<200
anthracene		<200	<200	110	<200	<400	<200
benzo(ghi)perylene		<400	<400	<400	<400	<800	<400
fluorene		<200	<200	<200	<200	<400	<200
phenanthrene		<200	<200	80	<200	<400	<200
dibenzo(a,h)anthracene		<400	<400	<400	<400	<800	<400
indeno(1,2,3-cd)pyrene		<400	<400	<400	<400	<800	<400
pyrene		<200	<200	120	<200	400	<200

TABLE C-2. (CONTINUED/PAGE 24)

BASE/NEUTRAL COMPOUNDS	SAMPLING DATE:	22A 1-2'	22B 2.5-3.5'	23A 0-0.5'	23B 1-2'	24A 0-0.5'	24B 1-2'
	1/85	1/85	1/85	1/85	1/85	1/85	1/85
acenaphthene		<200	<200	<200	<200	<200	<200
benzidine		<800	<800	<800	<800	<800	<800
1,2,4-trichlorobenzene		<200	<200	<200	<200	<200	<200
hexachlorobenzene		<200	<200	<200	<200	<200	<200
hexachloroethane		<200	<200	<200	<200	<200	<200
bis(2-chloroethyl)ether		<200	<200	<200	<200	<200	<200
2-chloronaphthalene		<200	<200	<200	<200	<200	<200
1,2-dichlorobenzene		<200	260	<200	100	<200	900
1,3-dichlorobenzene		<200	<200	<200	<200	<200	<200
1,4-dichlorobenzene		<200	<200	<200	<200	<200	<200
3,3'-dichlorobenzidine		<400	<400	<400	<400	<400	<400
2,4-dinitrotoluene		<400	<400	<400	<400	<400	<400
2,6-dinitrotoluene		<400	<400	<400	<400	<400	<400
1,2-diphenylhydrazine (as azobenzene)		<400	<400	<400	<400	<400	<400
fluoranthene		200	270	130	<200	180	140
4-chlorophenyl phenyl ether		<200	<200	<200	<200	<200	<200
4-bromophenyl phenyl ether		<200	<200	<200	<200	<200	<200
bis (2-chloroisopropyl) ether		<400	<400	<400	<400	<400	<400
bis (2-chloroethoxy) methane		<400	<400	<400	<400	<400	<400
hexachlorobutadiene		<200	<200	<200	<200	<200	<200
hexachlorocyclopentadiene		<200	<200	<200	<200	<200	<200
isophorone		<200	<200	<200	<200	<200	<200
naphthalene		<200	<200	<200	<200	<200	<200
nitrobenzene		<200	<200	<200	<200	<200	<200
N-nitrosodiphenylamine		<200	<200	<200	<200	<200	<200
N-nitrosodi-n-propylamine		<200	<200	<200	<200	<200	<200
bis (2-ethylhexyl) phthalate		<200	550	610	300	1100	660
butyl benzyl phthalate		<200	<200	<200	<200	<200	<200
di-n-butyl phthalate		<200	140	120	<200	<200	<200
di-n-octyl phthalate		<200	<200	<200	<200	<200	<200
diethyl phthalate		<200	<200	<200	<200	<200	<200
dimethyl phthalate		<200	<200	<200	<200	<200	<200
benzo(a)anthracene		<200	210	130	<200	230	140
benzo(a)pyrene		160	320	140	<400	290	200
3,4-benzofluoranthene		210	380	190	<400	360	250
benzo(k)fluoranthene		210	380	190	<400	360	250
chrysene		130	240	120	<400	210	190
acenaphthylene		<200	<200	<200	<200	<200	<200
anthracene		<200	<200	<200	<200	<200	<200
benzo(ghi) perylene		<400	160	<200	<200	150	130
fluorene		<200	<200	<200	<200	<200	<200
phenanthrene		110	160	<200	<200	120	110
dibenzo(a,h)anthracene		<400	<400	<400	<400	<400	<400
indeno(1,2,3-cd)pyrene		<400	180	<400	<400	220	180
pyrene		130	310	150	<200	210	220

TABLE C-2. (CONTINUED/PAGE 25)

BASE/NEUTRAL COMPOUNDS	SAMPLING DATE: 1/85	25A	25B	26A	26B
		SAMPLE DEPTH 0-1'	1-2'	0-1'	2-3'
acenaphthene		<200	<200	<200	<200
benzidine		<800	<800	<800	<800
1,2,4-trichlorobenzene		<200	<200	<200	<200
hexachlorobenzene		<200	<200	<200	<200
hexachloroethane		<200	<200	<200	<200
bis(2-chloroethyl)ether		<200	<200	<200	<200
2-chloronaphthalene		<200	<200	<200	<200
1,2-dichlorobenzene		<200	930	<200	<200
1,3-dichlorobenzene		<200	<200	<200	<200
1,4-dichlorobenzene		<200	<200	<200	<200
3,3'-dichlorobenzidine		<400	<400	<400	<400
2,4-dinitrotoluene		<400	<400	<400	<400
2,6-dinitrotoluene		<400	<400	<400	<400
1,2-diphenylhydrazine (as azobenzene)		<400	<400	<400	<400
fluoranthene		170	340	<200	<200
4-chlorophenyl phenyl ether		<200	<200	<200	<200
4-bromophenyl phenyl ether		<200	<200	<200	<200
bis (2-chloroisopropyl) ether		<400	<400	<400	<400
bis (2-chloroethoxy) methane		<400	<400	<400	<400
hexachlorobutadiene		<200	<200	<200	<200
hexachlorocyclopentadiene		<200	<200	<200	<200
isophorone		<200	<200	<200	<200
naphthalene		<200	<200	<200	<200
nitrobenzene		<200	<200	<200	<200
N-nitrosodiphenylamine		<200	440	<200	<200
N-nitrosodi-n-propylamine		<200	<200	<200	<200
bis (2-ethylhexyl) phthalate		1000	380	460	<200
butyl benzyl phthalate		<200	<200	<200	<200
di-n-butyl phthalate		<200	120	<200	<200
di-n-octyl phthalate		<200	<200	<200	<200
diethyl phthalate		<200	<200	<200	<200
dimethyl phthalate		<200	<200	<200	<200
benzo(a)anthracene		160	310	<200	<200
benzo(a)pyrene		190	330	<400	<400
3,4-benzofluoranthene		300	500	<400	<400
benzo(k)fluoranthene		300	500	<400	<400
chrysene		120	190	<400	<400
acenaphthylene		<200	<200	<200	<200
anthracene		<200	<200	<200	<200
benzo(ghi) perylene		300	200	<400	<400
fluorene		<200	<200	<200	<200
phenanthrene		<200	240	<200	<200
dibenzo(a,h)anthracene		<400	93	<400	<400
indeno(1,2,3-cd)pyrene		150	220	<400	<400
pyrene		140	290	<200	<200

TABLE C-2. (CONTINUED/PAGE 26)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	1A	1B	1C	2A	2B	2C
		1-2'	2-3'	5-6'	2-3'	3-4'	6-7'
SAMPLE DEPTH							
2,4,6-trichlorophenol		<8000	<2000	<200	<4000	<4000	<2000
p-chloro-m-cresol		<8000	<2000	<200	<4000	<4000	<2000
2-chlorophenol		<8000	<2000	3700	<4000	<4000	<2000
2,4-dichlorophenol		<8000	<2000	<200	<4000	<4000	<2000
2,4-dimethylphenol		<8000	<2000	<200	<4000	<4000	<2000
2-nitrophenol		<16000	<4000	<400	<8000	<8000	<4000
4-nitrophenol		<40000	<10000	<1000	<20000	<20000	<10000
2,4-dinitrophenol		<40000	<10000	<1000	<20000	<20000	<10000
2,6-dinitro-o-cresol		<16000	<4000	<400	<8000	<8000	<4000
pentachlorophenol		<8000	<2000	<200	<4000	<4000	<2000
phenol		<8000	6400	3000	8600	10000	4600
SAMPLE DEPTH		3A	3B	3C	4A	4B	4C
		1-2'	2.5-3'	5-6'	2-3'	3-4'	5-6'
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
2,4,6-trichlorophenol		<8000	<8000	<1000	<2000	<4000	<1000
p-chloro-m-cresol		<8000	<8000	<1000	<2000	<4000	<1000
2-chlorophenol		<8000	<8000	<1000	<2000	<4000	<1000
2,4-dichlorophenol		<8000	<8000	<1000	<2000	<4000	<1000
2,4-dimethylphenol		<8000	<8000	<1000	<2000	<4000	<1000
2-nitrophenol		<16000	<16000	<2000	<4000	<8000	<2000
4-nitrophenol		<1000	<1000	<5000	<10000	<20000	<5000
2,4-dinitrophenol		<40000	<40000	<5000	<10000	<20000	<5000
2,6-dinitro-o-cresol		<16000	<16000	<2000	<4000	<8000	<2000
pentachlorophenol		<8000	<8000	<1000	<2000	<4000	<1000
phenol		8000	24000	5800	<2000	10000	1200

TABLE C-2. (CONTINUED/PAGE 27)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	5A	5B	5C	6A	6B	6C
		1-2'	3-4'	5-6'	1-2'	3-4'	6-7'
SAMPLE DEPTH							
2,4,6-trichlorophenol		<2000	<1000	<200	<8000	<8000	<200
p-chloro-m-cresol		<2000	<1000	<200	<8000	<8000	<200
2-chlorophenol		<2000	<1000	<200	<8000	<8000	<200
2,4-dichlorophenol		<2000	<1000	<200	<8000	<8000	<200
2,4-dimethylphenol		<2000	<1000	<200	<8000	<8000	<200
2-nitrophenol		<4000	<2000	<400	<16000	<16000	<400
4-nitrophenol		<10000	<5000	<1000	<40000	<40000	<1000
2,4-dinitrophenol		<10000	<5000	<1000	<40000	<40000	<1000
2,6-dinitro-o-cresol		<4000	<2000	<400	<16000	<16000	<400
pentachlorophenol		<2000	<1000	<200	<8000	<8000	<200
phenol		<2000	<1000	1400	<8000	15000	5000
SAMPLE DEPTH		7A	7B	7C	8A	8B	8C
		2-3'	3-4'	4-5'	2-3'	3-3.5'	5-6'
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
2,4,6-trichlorophenol		<20000	<20000	<2000	<1000	<800	<200
p-chloro-m-cresol		<20000	<20000	<2000	<1000	<800	<200
2-chlorophenol		<20000	<20000	<2000	<1000	<800	<200
2,4-dichlorophenol		<20000	<20000	<2000	<1000	<800	<200
2,4-dimethylphenol		<20000	<20000	<2000	<1000	<800	<200
2-nitrophenol		<40000	<40000	<4000	<2000	<1600	<400
4-nitrophenol		<100000	<100000	<10000	<5000	<4000	<1000
2,4-dinitrophenol		<100000	<100000	<10000	<5000	<4000	<1000
2,6-dinitro-o-cresol		<40000	<40000	<4000	<2000	<1600	<400
pentachlorophenol		<20000	<20000	<2000	<1000	<800	<200
phenol		<20000	13000	6700	<1000	<800	<200

TABLE C-2. (CONTINUED/PAGE 28)

ACID EXTRACTABLE COMPOUNDS	SAMPLE DEPTH	9A	9B	9C	10A	10B	10C
		2-3'	3-4'	5-6'	2-3'	3-3.5'	3.5-4'
2,4,6-trichlorophenol		<7400	<2000	<200	<7600	<200	<200
p-chloro-m-cresol		<7400	<2000	<200	<7600	<200	<200
2-chlorophenol		<7400	<2000	<200	<7600	<200	<200
2,4-dichlorophenol		<7400	<2000	<200	<7600	<200	<200
2,4-dimethylphenol		<7400	<2000	<200	<7600	<200	<200
2-nitrophenol		<15000	<4000	<400	<15000	<400	<400
4-nitrophenol		<37000	<10000	<1000	<38000	<1000	<1000
2,4-dinitrophenol		<37000	<10000	<1000	<38000	<1000	<1000
2,6-dinitro-o-cresol		<15000	<4000	<400	<15000	<400	<400
pentachlorophenol		<7400	<2000	<200	<7600	<200	<200
phenol		<7400	<2000	<200	<7600	<200	<200
ACID EXTRACTABLE COMPOUNDS	SAMPLE DEPTH	11A	11B	11C	12A	12B	
		2-3'	3-3.5'	3.5-4'	1-2'	2-3'	
2,4,6-trichlorophenol		<7600	<2000	<200	<1000	<200	
p-chloro-m-cresol		<7600	<2000	<200	<1000	<200	
2-chlorophenol		<7600	<2000	<200	<1000	<200	
2,4-dichlorophenol		<7600	<2000	<200	<1000	<200	
2,4-dimethylphenol		<7600	<2000	<200	<1000	<200	
2-nitrophenol		<15000	<4000	<400	<2000	<400	
4-nitrophenol		<38000	<10000	<1000	<5000	<1000	
2,4-dinitrophenol		<38000	<10000	<1000	<5000	<1000	
2,6-dinitro-o-cresol		<15000	<4000	<400	<2000	<400	
pentachlorophenol		<7600	<2000	<200	<1000	<200	
phenol		<7600	<2000	<200	<1000	<200	

TABLE C-2. (CONTINUED/PAGE 29)

ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	13A	13B	13C	14A	14B	14C
		SAMPLE DEPTH 2-3'	2-3'	3-4'	4-5'	2-3'	3-3.5'
2,4,6-trichlorophenol		<4000	<2000	<200	<400	<3600	<200
p-chloro-m-cresol		<4000	<2000	<200	<400	<3600	<200
2-chlorophenol		<4000	<2000	<200	<400	<3600	<200
2,4-dichlorophenol		<4000	<2000	<200	<400	<3600	<200
2,4-dimethylphenol		<4000	<2000	<200	<400	<3600	<200
2-nitrophenol		<8000	<4000	<400	<800	<7200	<400
4-nitrophenol		<20000	<10000	<1000	<2000	<18000	<1000
2,4-dinitrophenol		<20000	<10000	<1000	<2000	<18000	<1000
2,6-dinitro-o-cresol		<8000	<4000	<400	<800	<7200	<400
pentachlorophenol		<4000	<2000	<200	<400	<3600	<200
phenol		<4000	<2000	<200	<400	<3600	<200
<hr/>							
ACID EXTRACTABLE COMPOUNDS	SAMPLING DATE:	15A	15B	15C	16A	16B	16C
		SAMPLE DEPTH 1.5-2.5'	1.5-3.5'	3.5-4.5'	0.5-1.5'	1.5-2.0'	2-3'
2,4,6-trichlorophenol		<20000	<1000	<200	<20000	<200	<200
p-chloro-m-cresol		<20000	<1000	<200	<20000	180	<200
2-chlorophenol		<20000	<1000	<200	<20000	<200	<200
2,4-dichlorophenol		<20000	<1000	<200	<20000	<200	<200
2,4-dimethylphenol		<20000	<1000	<200	<20000	<200	<200
2-nitrophenol		<40000	<2000	<400	<40000	<400	<400
4-nitrophenol		<100000	<5000	<1000	<100000	<1000	<1000
2,4-dinitrophenol		<100000	<5000	<1000	<100000	<1000	<1000
2,6-dinitro-o-cresol		<40000	<2000	<400	<40000	<400	<400
pentachlorophenol		<20000	<1000	<200	<20000	<200	<200
phenol		<20000	<1000	<200	<20000	<200	<200

TABLE C-2. (CONTINUED/PAGE 30)

		17A ===== SAMPLE DEPTH 2.5-3.5'	17B ===== 3.5-4'	17C ===== 4-5'	18A ===== 2-3'	18B ===== 3-3.5'	18C ===== 3.5-4'
ACID EXTRACTABLE COMPOUNDS =====	SAMPLING DATE: =====	1/85	1/85	1/85	1/85	1/85	1/85
2,4,6-trichlorophenol		<1000	<2000	<200	<800	<800	<2000
p-chloro-m-cresol		<1000	<2000	<200	<800	<800	<2000
2-chlorophenol		<1000	<2000	<200	<800	<800	<2000
2,4-dichlorophenol		<1000	<2000	<200	<800	<800	<2000
2,4-dimethylphenol		<1000	<2000	<200	<800	<800	<2000
2-nitrophenol		<2000	<4000	<400	<1600	<1600	<4000
4-nitrophenol		<5000	<10000	<1000	<4000	<4000	<10000
2,4-dinitrophenol		<5000	<10000	<1000	<4000	<4000	<10000
2,6-dinitro-o-cresol		<2000	<4000	<400	<1600	<1600	<4000
pentachlorophenol		<1000	<2000	<200	<800	<800	<2000
phenol		<1000	<2000	<200	<800	<800	<2000
		19A ===== SAMPLE DEPTH 1-2'	19B ===== 2-3'	20A ===== 1-2'	20B ===== 2-3'	21A ===== 0-1'	21B ===== 2-3'
ACID EXTRACTABLE COMPOUNDS =====	SAMPLING DATE: =====	1/85	1/85	1/85	1/85	1/85	1/85
2,4,6-trichlorophenol		<200	<200	<200	<200	<400	<200
p-chloro-m-cresol		<200	<200	<200	270	<400	<200
2-chlorophenol		<200	<200	<200	<200	<400	<200
2,4-dichlorophenol		<200	<200	<200	<200	<400	<200
2,4-dimethylphenol		<200	<200	<200	<200	<400	<200
2-nitrophenol		<400	<400	<400	<400	<800	<400
4-nitrophenol		<1000	<1000	<1000	<1000	<2000	<1000
2,4-dinitrophenol		<1000	<1000	<1000	<1000	<2000	<1000
2,6-dinitro-o-cresol		<400	<400	<400	<400	<800	<400
pentachlorophenol		<200	<200	<200	<200	<400	<200
phenol		<200	<200	100	<200	<400	<200

TABLE C-2. (CONTINUED/PAGE 31)

ACID EXTRACTABLE COMPOUNDS	SAMPLE DEPTH	22A	22B	23A	23B	24A	24B
		1-2'	2.5-3.5'	0-0.5'	1-2'	0-0.5'	1-2'
2,4,6-trichlorophenol		<200	<200	<200	<200	<200	<200
p-chloro-m-cresol		<200	<200	<200	<200	<200	<200
2-chlorophenol		<200	<200	<200	<200	<200	<200
2,4-dichlorophenol		<200	<200	<200	<200	<200	<200
2,4-dimethylphenol		<200	<200	<200	<200	<200	<200
2-nitrophenol		<400	<400	<400	<400	<400	<400
4-nitrophenol		<1000	<1000	<1000	<1000	<1000	<1000
2,4-dinitrophenol		<1000	<1000	<1000	<1000	<1000	<1000
2,6-dinitro-o-cresol		<400	<400	<400	<400	<400	<400
pentachlorophenol		<200	<200	<200	<200	<200	<200
phenol		<200	<200	<200	220	<200	<200

ACID EXTRACTABLE COMPOUNDS	SAMPLE DEPTH	25A	25B	26A	26B
		0-1'	1-2'	0-1'	2-3'
2,4,6-trichlorophenol		<200	<200	<200	<200
p-chloro-m-cresol		<200	<200	<200	<200
2-chlorophenol		<200	<200	<200	<200
2,4-dichlorophenol		<200	<200	<200	<200
2,4-dimethylphenol		<200	<200	<200	<200
2-nitrophenol		<400	<400	<400	<400
4-nitrophenol		<1000	<1000	<1000	<1000
2,4-dinitrophenol		<1000	<1000	<1000	<1000
2,6-dinitro-o-cresol		<400	<400	<400	<400
pentachlorophenol		<200	<200	<200	<200
phenol		<200	<200	<200	<200

TABLE C-2. (CONTINUED/PAGE 32)

PRIORITY POLLUTANT PESTICIDES	SAMPLE DEPTH	1A	1B	1C	2A	2B	2C
		1-2'	2-3'	5-6'	2-3'	3-4'	6-7'
aldrin		<20000	<5000	<500	<10000	<10000	<5000
B-BHC		<20000	<5000	<500	<10000	<10000	<5000
D-BHC		<20000	<5000	<500	<10000	<10000	<5000
chlordane		<200000	<50000	<5000	<100000	<100000	<50000
4,4'-DDD		<20000	<5000	<500	<10000	<10000	<5000
4,4'-DDE		<20000	<5000	<500	<10000	<10000	<5000
4,4'-DDT		<20000	<5000	<500	<10000	<10000	<5000
dieldrin		<20000	<5000	<500	<10000	<10000	<5000
endosulfan sulfate		<40000	<10000	<1000	<20000	<20000	<10000
endrin aldehyde		<40000	<10000	<1000	<20000	<20000	<10000
heptachlor		<20000	<5000	<500	<10000	<10000	<5000
heptachlor epoxide		<20000	<5000	<500	<10000	<10000	<5000
PCB		<200000	<50000	<5000	<100000	<100000	<50000
toxaphene		<400000	<100000	<10000	<200000	<200000	<100000
PRIORITY POLLUTANT PESTICIDES	SAMPLE DEPTH	3A	3B	3C	4A	4B	4C
		1-2'	2.5-3'	5-6'	2-3'	3-4'	5-6'
aldrin		<20000	<20000	<2500	<5000	<10000	<2500
B-BHC		<20000	<20000	<2500	<5000	<10000	<2500
D-BHC		<20000	<20000	<2500	<5000	<10000	<2500
chlordane		<200000	<200000	<25000	<50000	<100000	<25000
4,4'-DDD		<20000	<20000	<2500	<5000	<10000	<2500
4,4'-DDE		<20000	<20000	<2500	<5000	<10000	<2500
4,4'-DDT		<20000	<20000	<2500	<5000	<10000	<2500
dieldrin		<20000	<20000	<2500	<5000	<10000	<2500
endosulfan sulfate		<40000	<40000	<5000	<10000	<20000	<5000
endrin aldehyde		<40000	<40000	<5000	<10000	<20000	<5000
heptachlor		<20000	<20000	<2500	<5000	<10000	<2500
heptachlor epoxide		<20000	<20000	<2500	<5000	<10000	<2500
PCB		<200000	<200000	<25000	<50000	<100000	<25000
toxaphene		<400000	<400000	<50000	<100000	<200000	<50000

TABLE C-2. (CONTINUED/PAGE 33)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	5A	5B	5C	6A	6B	6C
		SAMPLE DEPTH	1-2'	3-4'	5-6'	1-2'	3-4'
aldrin		<5000	<2500	<500	<20000	<20000	<500
B-BHC		<5000	<2500	<500	<20000	<20000	<500
D-BHC		<5000	<2500	<500	<20000	<20000	<500
chlordane		<50000	<25000	<5000	<200000	<200000	<5000
4,4'-DDD		<5000	<2500	<500	<20000	<20000	<500
4,4'-DDE		<5000	<2500	<500	<20000	<20000	<500
4,4'-DDT		<5000	<2500	<500	<20000	<20000	<500
dieldrin		<5000	<2500	<500	<20000	<20000	<500
endosulfan sulfate		<10000	<5000	<1000	<40000	<40000	<1000
endrin aldehyde		<10000	<5000	<1000	<40000	<40000	<1000
heptachlor		<5000	<2500	<500	<20000	<20000	<500
heptachlor epoxide		<5000	<2500	<500	<20000	<20000	<500
PCB		<50000	<25000	<5000	<200000	<200000	<5000
toxaphene		<100000	<50000	<10000	<400000	<400000	<10000
PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	7A	7B	7C	8A	8B	8C
		SAMPLE DEPTH	2-3'	3-4'	4-5'	2-3'	3-3.5'
aldrin		<50000	<50000	<5000	<2500	<2000	<500
B-BHC		<50000	<50000	<5000	<2500	<2000	<500
D-BHC		<50000	<50000	<5000	<2500	<2000	<500
chlordane		<500000	<500000	<50000	<25000	<20000	<5000
4,4'-DDD		<50000	<50000	<5000	<2500	<2000	<500
4,4'-DDE		<50000	<50000	<5000	<2500	<2000	<500
4,4'-DDT		<50000	<50000	<5000	<2500	<2000	<500
dieldrin		<50000	<50000	<5000	<2500	<2000	<500
endosulfan sulfate		<100000	<100000	<10000	<5000	<4000	<1000
endrin aldehyde		<100000	<100000	<10000	<5000	<4000	<1000
heptachlor		<50000	<50000	<5000	<2500	<2000	<500
heptachlor epoxide		<50000	<50000	<5000	<2500	<2000	<500
PCB		<500000	<500000	<50000	<25000	<20000	<5000
toxaphene		<1000000	<1000000	<100000	<50000	<40000	<10000

TABLE C-2. (CONTINUED/PAGE 34)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	9A	9B	9C	10A	10B	10C
		SAMPLE DEPTH	2-3'	3-4'	5-6'	2-3'	3-3.5'
aldrin		<19000	<5000	<500	<19000	<500	<500
B-BHC		<19000	<5000	<500	<19000	<500	<500
D-BHC		<19000	<5000	<500	<19000	<500	<500
chlordane		<190000	<50000	<5000	<190000	<5000	<5000
4,4'-DDD		<19000	<5000	<500	<19000	<500	<500
4,4'-DDE		<19000	<5000	<500	<19000	<500	<500
4,4'-DDT		<19000	<5000	<500	<19000	<500	<500
dieldrin		<19000	<5000	<500	<19000	<500	<500
endosulfan sulfate		<37000	<10000	<1000	<38000	<1000	<1000
endrin aldehyde		<37000	<10000	<1000	<38000	<1000	<1000
heptachlor		<19000	<5000	<500	<19000	<500	<500
heptachlor epoxide		<19000	<5000	<500	<19000	<500	<500
PCB		<190000	<50000	<5000	<190000	<5000	<5000
toxaphene		<370000	<100000	<10000	<380000	<10000	<10000
PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	11A	11B	11C	12A	12B	
		SAMPLE DEPTH	2-3'	3-3.5'	3.5-4'	1-2'	2-3'
aldrin		<19000	<5000	<500	<2500	<500	
B-BHC		<19000	<5000	<500	<2500	<500	
D-BHC		<19000	<5000	<500	<2500	<500	
chlordane		<190000	<50000	<5000	<25000	<5000	
4,4'-DDD		<19000	<5000	<500	<2500	<500	
4,4'-DDE		<19000	<5000	<500	<2500	<500	
4,4'-DDT		<19000	<5000	<500	<2500	<500	
dieldrin		<19000	<5000	<500	<2500	<500	
endosulfan sulfate		<38000	<10000	<1000	<5000	<1000	
endrin aldehyde		<38000	<10000	<1000	<5000	<1000	
heptachlor		<19000	<5000	<500	<2500	<500	
heptachlor epoxide		<19000	<5000	<500	<2500	<500	
PCB		<190000	<50000	<5000	<25000	<5000	
toxaphene		<380000	<100000	<10000	<50000	<10000	

TABLE C-2. (CONTINUED/PAGE 35)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	13A	13B	13C	14A	14B	14C
		SAMPLE DEPTH 2-3'	3-4'	4-5'	2-3'	3-3.5'	3.5-4.5'
aldrin		<10000	<5000	<500	<1000	<9000	<500
B-BHC		<10000	<5000	<500	<1000	<9000	<500
D-BHC		<10000	<5000	<500	<1000	<9000	<500
chlordane		<100000	<50000	<5000	<10000	<90000	<5000
4,4'-DDD		<10000	<5000	<500	<1000	<9000	<500
4,4'-DDE		<10000	<5000	<500	<1000	<9000	<500
4,4'-DDT		<10000	<5000	<500	<1000	<9000	<500
dieldrin		<10000	<5000	<500	<1000	<9000	<500
endosulfan sulfate		<20000	<10000	<1000	<2000	<18000	<1000
endrin aldehyde		<20000	<10000	<1000	<2000	<18000	<1000
heptachlor		<10000	<5000	<500	<1000	<9000	<500
heptachlor epoxide		<10000	<5000	<500	<1000	<9000	<500
PCB		<100000	<50000	<5000	<10000	<90000	<5000
toxaphene		<200000	<100000	<10000	<20000	<180000	<10000
PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	15A	15B	15C	16A	16B	16C
		SAMPLE DEPTH 1.5-2.5'	2.5-3.5'	3.5-4.5'	0.5-1.5'	1.5-2.0'	2-3'
aldrin		<50000	<2500	<500	<50000	<500	<500
B-BHC		<50000	<2500	<500	<50000	<500	<500
D-BHC		<50000	<2500	<500	<50000	<500	<500
chlordane		<500000	<25000	<5000	<500000	<5000	<5000
4,4'-DDD		<50000	<2500	<500	<50000	<500	<500
4,4'-DDE		<50000	<2500	<500	<50000	<500	<500
4,4'-DDT		<50000	<2500	<500	<50000	<500	<500
dieldrin		<50000	<2500	<500	<50000	<500	<500
endosulfan sulfate		<100000	<5000	<1000	<100000	<1000	<1000
endrin aldehyde		<100000	<5000	<1000	<100000	<1000	<1000
heptachlor		<50000	<2500	<500	<50000	<500	<500
heptachlor epoxide		<50000	<2500	<500	<50000	<500	<500
PCB		<500000	<25000	<5000	<500000	<5000	<5000
toxaphene		<1000000	<50000	<10000	<1000000	<10000	<10000

TABLE C-2. (CONTINUED/PAGE 36)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	17A	17B	17C	18A	18B	18C
		SAMPLE DEPTH 2.5-3.5'	3.5-4'	4-5'	2-3'	3-3.5'	3.5-4'
aldrin		<2500	<5000	<500	<2000	<2000	<5000
B-BHC		<2500	<5000	<500	<2000	<2000	<5000
D-BHC		<2500	<5000	<500	<2000	<2000	<5000
chlordane		<25000	<50000	<5000	<20000	<20000	<50000
4,4'-DDD		<2500	<5000	<500	<2000	<2000	<5000
4,4'-DDE		<2500	<5000	<500	<2000	<2000	<5000
4,4'-DDT		<2500	<5000	<500	<2000	<2000	<5000
dieldrin		<2500	<5000	<500	<2000	<2000	<5000
endosulfan sulfate		<5000	<10000	<1000	<4000	<4000	<10000
endrin aldehyde		<5000	<10000	<1000	<4000	<4000	<10000
heptachlor		<2500	<5000	<500	<2000	<2000	<5000
heptachlor epoxide		<2500	<5000	<500	<2000	<2000	<5000
PCB		<5000	<50000	<5000	<20000	<5000	<50000
toxaphene		<50000	<100000	<10000	<40000	<40000	<100000
PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	19A	19B	20A	20B	21A	21B
		SAMPLE DEPTH 1-2'	2-3'	1-2'	2-3'	0-1'	2-3'
aldrin		<500	<500	<500	<500	<1000	<500
B-BHC		<500	<500	<500	<500	<1000	<500
D-BHC		<500	<500	<500	<500	<1000	<500
chlordane		<5000	<5000	<5000	<5000	<10000	<5000
4,4'-DDD		<500	<500	<500	<500	<1000	<500
4,4'-DDE		<500	<500	<500	<500	<1000	<500
4,4'-DDT		<500	<500	<500	<500	<1000	<500
dieldrin		<500	<500	<500	<500	<1000	<500
endosulfan sulfate		<1000	<1000	<1000	<1000	<2000	<1000
endrin aldehyde		<1000	<1000	<1000	<1000	<2000	<1000
heptachlor		<500	<500	<500	<500	<1000	<500
heptachlor epoxide		<500	<500	<500	<500	<1000	<500
PCB		<5000	<5000	<5000	<5000	4000	2000
toxaphene		<10000	<10000	<10000	<10000	<20000	<10000

TABLE C-2. (CONTINUED/PAGE 37)

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	22A	22B	23A	23B	24A	24B
		SAMPLE DEPTH 1-2'	1-2.5-3.5'	0-0.5'	1-2'	0-0.5'	1-2'
aldrin		<500	<500	<500	<500	<500	<500
B-BHC		<500	<500	<500	<500	<500	<500
D-BHC		<500	<500	<500	<500	<500	<500
chlordane		<5000	<5000	<5000	<5000	<5000	<5000
4,4'-DDD		<500	<500	<500	<500	<500	<500
4,4'-DDE		<500	<500	<500	<500	<500	<500
4,4'-DDT		<500	<500	<500	<500	<500	<500
dieldrin		<500	<500	<500	<500	<500	<500
endosulfan sulfate		<1000	<1000	<1000	<1000	<1000	<1000
endrin aldehyde		<1000	<1000	<1000	<1000	<1000	<1000
heptachlor		<500	<500	<500	<500	<500	<500
heptachlor epoxide		<500	<500	<500	<500	<500	<500
PCB		3000	<5000	<5000	<5000	<5000	<5000
toxaphene		<10000	<10000	<10000	<10000	<10000	<10000

PRIORITY POLLUTANT PESTICIDES	SAMPLING DATE:	25A	25B	26A	26B
		SAMPLE DEPTH 0-1'	1-2'	0-1'	2-3'
aldrin		<500	<500	<500	<500
B-BHC		<500	<500	<500	<500
D-BHC		<500	<500	<500	<500
chlordane		<5000	<5000	<5000	<5000
4,4'-DDD		<500	<500	<500	<500
4,4'-DDE		<500	<500	<500	<500
4,4'-DDT		<500	<500	<500	<500
dieldrin		<500	<500	<500	<500
endosulfan sulfate		<1000	<1000	<1000	<1000
endrin aldehyde		<1000	<1000	<1000	<1000
heptachlor		<500	<500	<500	<500
heptachlor epoxide		<500	<500	<500	<500
PCB		<5000	<5000	<5000	<5000
toxaphene		<10000	<10000	<10000	<10000

TABLE C-2. (CONTINUED/PAGE 38)

	SAMPLE DEPTH	1A	1B	1C	2A	2B	2C
		1-2'	2-3'	5-6'	2-3'	3-4'	6-7'
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
arsenic as As (mg/L)*		0.043	0.035	0.031	0.023	0.018	0.020
cadmium as Cd (mg/L)*		<0.001	<0.001	<0.001	0.020	<0.001	0.0018
chromium as Cr (mg/L)*		8.5	0.41	0.09	30	0.18	0.44
lead as Pb (mg/L)*		0.12	0.028	0.016	0.15	0.014	0.02
cyanide as CN (mg/kg)**		32	1.0	<0.33	15	0.92	<0.33
manganese as Mn (mg/kg)**		22000	2300	3700	26000	300	1600
zinc as Zn (mg/kg)**		63	21	41	50	12	25
pH (units)**		8.1	7.3	7.8	7.5	6.5	6.6
	SAMPLE DEPTH	3A	3B	3C	4A	4B	4C
		1-2'	2.5-3'	5-6'	2-3'	3-4'	5-6'
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
arsenic as As (mg/L)*		0.088	0.05	0.015	0.013	0.020	<0.005
cadmium as Cd (mg/L)*		<0.001	0.0014	<0.001	<0.001	<0.001	<0.001
chromium as Cr (mg/L)*		0.27	0.16	0.28	1.9	0.16	0.19
lead as Pb (mg/L)*		<0.01	0.016	<0.005	0.035	0.020	<0.005
cyanide as CN (mg/kg)**		20	2.7	<0.33	29	14	1.2
manganese as Mn (mg/kg)**		22000	1000	300	30000	21000	800
zinc as Zn (mg/kg)**		110	9.5	23	54	63	24
pH (units)**		8.3	7.5	7.4	8.3	7.8	8.0
	SAMPLE DEPTH	5A	5B	5C	6A	6B	6C
		1-2'	3-4'	5-6'	1-2'	3-4'	6-7'
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
arsenic as As (mg/L)*		0.15	0.063	0.008	0.043	0.013	0.010
cadmium as Cd (mg/L)*		0.001	<0.001	<0.001	0.016	0.004	<0.001
chromium as Cr (mg/L)*		0.04	0.46	0.06	26	0.33	0.17
lead as Pb (mg/L)*		0.070	<0.01	<0.01	0.022	0.006	<0.005
cyanide as CN (mg/kg)**		4.8	4.4	<0.42	16	0.67	<0.33
manganese as Mn (mg/kg)**		16000	4700	200	25000	200	1400
zinc as Zn (mg/kg)**		61	32	34	36	93	19
pH (units)**		8.2	7.6	7.7	8.3	5.7	7.6

* Analysis performed on E.P. Extract, extracted according to EP Toxicity Test procedure (Federal Register, Vol. 45, No. 08, May 19, 1980, pp 33127-33128).

** Analysis performed on total sample.

TABLE C-2. (CONTINUED/PAGE 39)

	SAMPLE DEPTH	7A	7B	7C	8A	8B	8C
		2-3'	3-4'	4-5'	2-3'	3-3.5'	5-6'
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
arsenic as As (mg/L)*	<0.008	0.01	<0.008	0.024	0.12	<0.008	
cadmium as Cd (mg/L)*	0.001	<0.001	<0.001	0.002	<0.001	<0.001	
chromium as Cr (mg/L)*	17	0.65	0.44	11	1.1	0.15	
lead as Pb (mg/L)*	0.050	<0.005	<0.005	<0.01	<0.005	<0.005	
cyanide as CN (mg/kg)**	35	0.75	0.50	170	12	2.6	
manganese as Mn (mg/kg)**	14000	260	330	6000	4000	1400	
zinc as Zn (mg/kg)**	79	6.9	28	29	23	31	
pH (units)**	8.1	7.2	7.8	7.6	7.4	8.5	
		9A	9B	9C	10A	10B	10C
	SAMPLE DEPTH	2-3'	3-4'	5-6'	2-3'	3-3.5'	3.5-4'
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
arsenic as As (mg/L)*	0.072	0.03	<0.008	0.11	0.032	<0.008	
cadmium as Cd (mg/L)*	0.01	0.001	<0.001	0.002	0.004	0.005	
chromium as Cr (mg/L)*	1.6	1.7	0.08	0.48	0.02	<0.02	
lead as Pb (mg/L)*	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	
cyanide as CN (mg/kg)**	67	0.92	1.4	<0.33	1.1	<0.33	
manganese as Mn (mg/kg)**	1800	1700	170	5000	340	310	
zinc as Zn (mg/kg)**	37	9.0	29	380	31	37	
pH (units)**	7.3	7.8	8.2	8.7	8.0	8.7	
		11A	11B	11C	12A	12B	
	SAMPLE DEPTH	2-3'	3-3.5'	3.5-4'	1-2'	2-3'	
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	
arsenic as As (mg/L)*	<0.008	0.066	<0.008	0.024	0.012		
cadmium as Cd (mg/L)*	0.001	0.001	0.001	<0.001	0.001		
chromium as Cr (mg/L)*	<0.02	0.03	<0.02	<0.02	<0.02		
lead as Pb (mg/L)*	<0.01	<0.01	<0.01	<0.01	<0.01		
cyanide as CN (mg/kg)**	<0.33	1.1	<0.33	27	4.2		
manganese as Mn (mg/kg)**	17000	1100	950	21000	1900		
zinc as Zn (mg/kg)**	110	80	29	280	30		
pH (units)**	9.8	8.2	8.0	9.5	8.7		

* Analysis performed on E.P. Extract, extracted according to EP Toxicity Test procedure (Federal Register, Vol. 45, No. 08, May 19, 1980, pp 33127-33128).

** Analysis performed on total sample.

TABLE C-2. (CONTINUED/PAGE 40)

	SAMPLE DEPTH	13A	13B	13C	14A	14B	14C
		2-3'	3-4'	4-5'	2-3'	3-3.5'	3.5-4.5'
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
arsenic as As (mg/L)*		0.098	0.03	<0.008	0.08	0.016	0.012
cadmium as Cd (mg/L)*		<0.001	0.003	0.002	<0.001	0.004	<0.001
chromium as Cr (mg/L)*		0.04	<0.02	<0.02	0.08	<0.02	<0.02
lead as Pb (mg/L)*		0.01	<0.01	<0.01	<0.01	<0.01	<0.01
cyanide as CN (mg/kg)**		7.7	4.2	0.75	<0.33	<0.33	0.58
manganese as Mn (mg/kg)**		21000	1800	90	16000	140	110
zinc as Zn (mg/kg)**		110	27	32	98	16	25
pH (units)**		8.9	7.9	7.8	8.9	7.8	8.2
	SAMPLE DEPTH	15A	15B	15C	16A	16B	16C
		1.5-2.5'	2.5-3.5'	3.5-4.5'	0.5-1.5'	1.5-2.0'	2-3'
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
arsenic as As (mg/L)*		0.020	0.032	<0.008	0.11	0.02	<0.008
cadmium as Cd (mg/L)*		<0.001	0.003	<0.002	<0.002	<0.002	0.004
chromium as Cr (mg/L)*		0.02	0.02	<0.02	0.08	0.03	<0.02
lead as Pb (mg/L)*		<0.01	<0.01	<0.01	0.016	<0.01	<0.01
cyanide as CN (mg/kg)**		22	0.67	<0.33	20	2.2	<0.33
manganese as Mn (mg/kg)**		21000	360	180	10000	850	240
zinc as Zn (mg/kg)**		85	78	37	440	83	300
pH (units)**		10.3	8.5	9.2	8.6	8.3	8.4
	SAMPLE DEPTH	17A	17B	17C	18A	18B	18C
		2.5-3.5'	3.5-4'	4-5'	2-3'	3-3.5'	3.5-4'
OTHER CONSTITUENTS	SAMPLING DATE:	1/85	1/85	1/85	1/85	1/85	1/85
arsenic as As (mg/L)*		0.11	0.018	0.008	0.052	0.052	0.06
cadmium as Cd (mg/L)*		<0.002	<0.002	0.005	<0.002	<0.002	<0.002
chromium as Cr (mg/L)*		0.13	<0.02	<0.02	<0.02	0.05	0.02
lead as Pb (mg/L)*		<0.01	<0.01	<0.01	0.016	<0.01	<0.01
cyanide as CN (mg/kg)**		12	<0.33	<0.33	38	1.0	<0.33
manganese as Mn (mg/kg)**		18000	140	380	9500	290	630
zinc as Zn (mg/kg)**		270	26	34	360	72	33
pH (units)**		9.3	8.7	8.4	8.6	7.7	7.7

* Analysis performed on E.P. Extract, extracted according to EP Toxicity Test procedure (Federal Register, Vol. 45, No. 08, May 19, 1980, pp 33127-33128).


** Analysis performed on total sample.

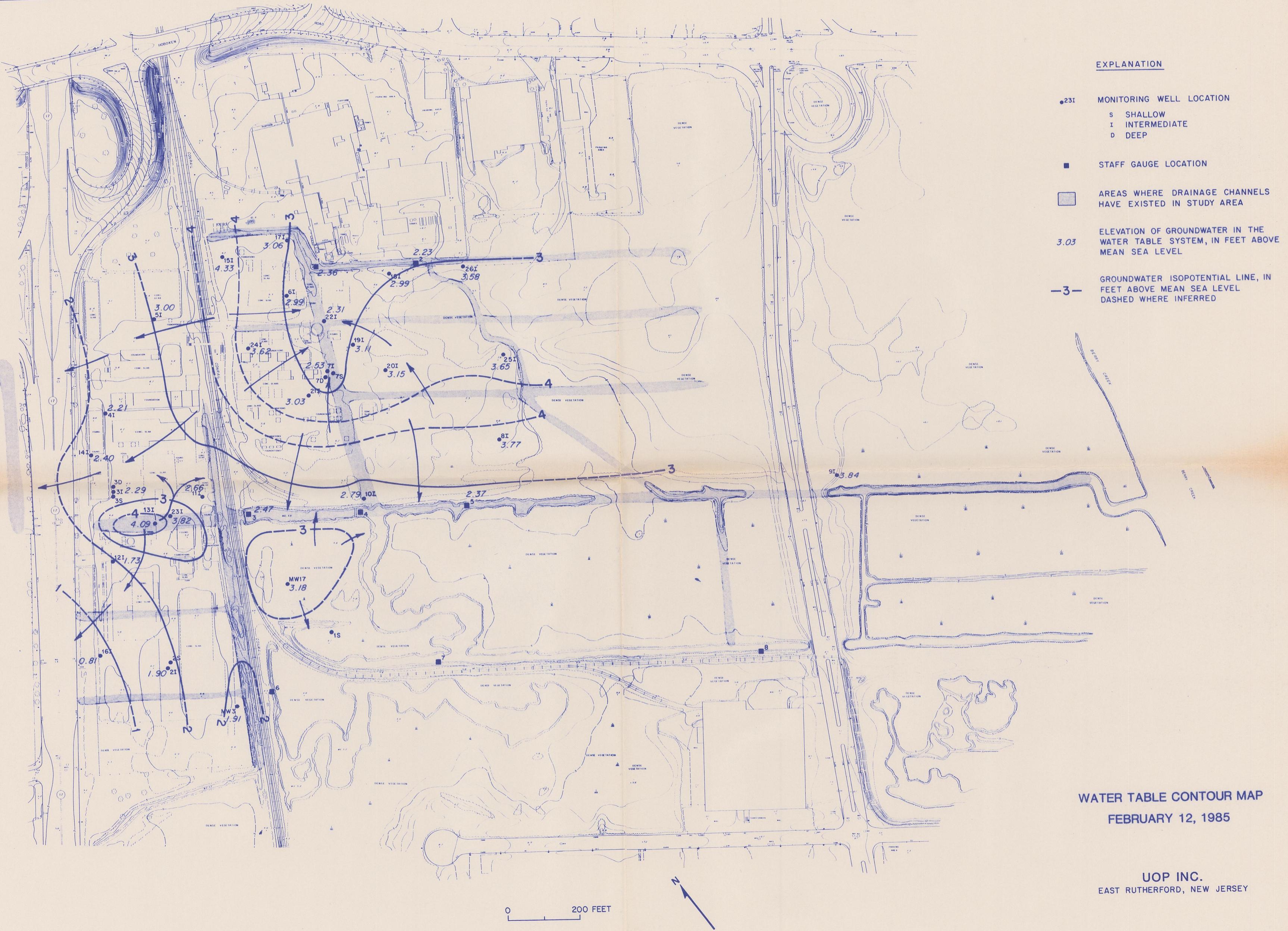
TABLE C-2. (CONTINUED/PAGE 41)

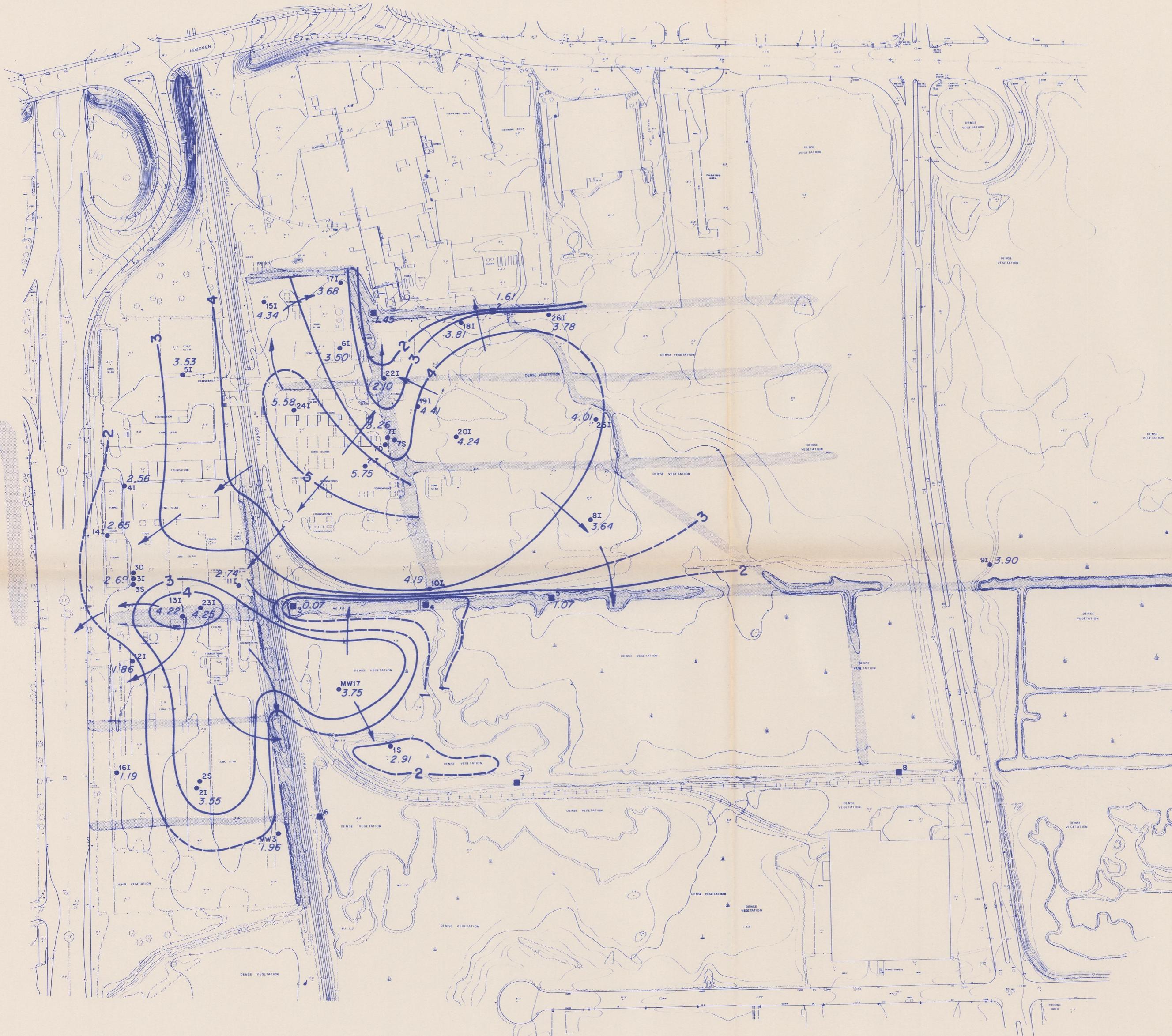
	OTHER CONSTITUENTS	19A		19B		20A		20B		21A		21B	
		SAMPLE DEPTH	1-2'	SAMPLE DEPTH	2-3'	SAMPLE DEPTH	1-2'	SAMPLE DEPTH	2-3'	SAMPLE DEPTH	0-1'	SAMPLE DEPTH	2-3'
	SAMPLING DATE:		1/85		1/85		1/85		1/85		1/85		1/85
arsenic as As (mg/L)*		<0.008		<0.008		0.018		0.018		0.008		<0.008	
cadmium as Cd (mg/L)*		<0.002		<0.002		<0.002		0.006		<0.002		0.002	
chromium as Cr (mg/L)*		0.02		0.04		<0.02		0.07		0.56		0.09	
lead as Pb (mg/L)*		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01	
cyanide as CN (mg/kg)**		7.5		0.79		18		2.4		3.2		<0.33	
manganese as Mn (mg/kg)**		900		320		16000		550		25000		1200	
zinc as Zn (mg/kg)**		55		19		250		45		230		37	
pH (units)**		6.8		7.0		7.5		7.1		7.1		7.2	
		22A		22B		23A		23B		24A		24B	
	SAMPLE DEPTH	1-2'		2.5-3.5'		0-0.5'		1-2'		0-0.5'		1-2'	
	SAMPLING DATE:		1/85		1/85		1/85		1/85		1/85		1/85
arsenic as As (mg/L)*		<0.008		<0.008		<0.008		0.016		<0.008		0.010	
cadmium as Cd (mg/L)*		<0.002		<0.002		<0.002		<0.002		<0.002		<0.002	
chromium as Cr (mg/L)*		0.21		0.03		<0.02		<0.02		<0.02		<0.02	
lead as Pb (mg/L)*		<0.01		<0.01		<0.01		<0.01		<0.01		<0.01	
cyanide as CN (mg/kg)**		6.2		6.0		1.6		0.42		1.4		1.3	
manganese as Mn (mg/kg)**		2700		4500		5600		950		10000		2700	
zinc as Zn (mg/kg)**		38		51		200		34		210		150	
pH (units)**		7.0		6.9		7.0		6.7		7.0		6.7	
		25A		25B		26A		26B					
	SAMPLE DEPTH	0-1'		1-2'		0-1'		2-3'					
	SAMPLING DATE:		1/85		1/85		1/85		1/85				
arsenic as As (mg/L)*		<0.008		0.080		<0.008		<0.008					
cadmium as Cd (mg/L)*		0.002		<0.002		0.002		<0.002					
chromium as Cr (mg/L)*		<0.02		<0.02		<0.02		<0.02					
lead as Pb (mg/L)*		<0.01		<0.01		<0.01		<0.01					
cyanide as CN (mg/kg)**		1.5		0.58		1.6		<0.33					
manganese as Mn (mg/kg)**		3500		110		3800		180					
zinc as Zn (mg/kg)**		140		32		69		31					
pH (units)**		6.5		6.7		5.8		5.9					

* Analysis performed on E.P. Extract, extracted according to EP Toxicity Test procedure (Federal Register, Vol. 45, No. 08, May 19, 1980, pp 33127-33128).

** Analysis performed on total sample.






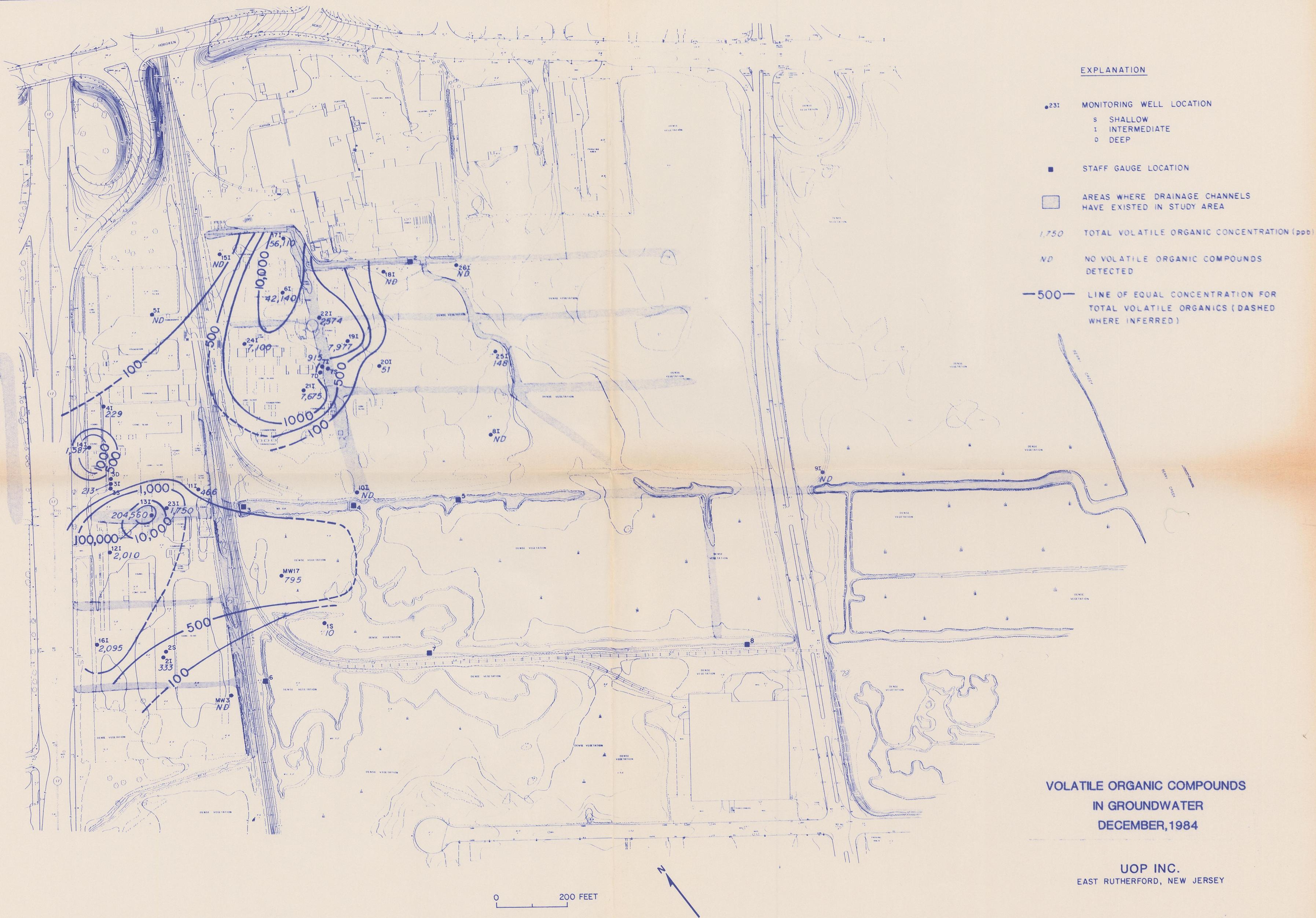


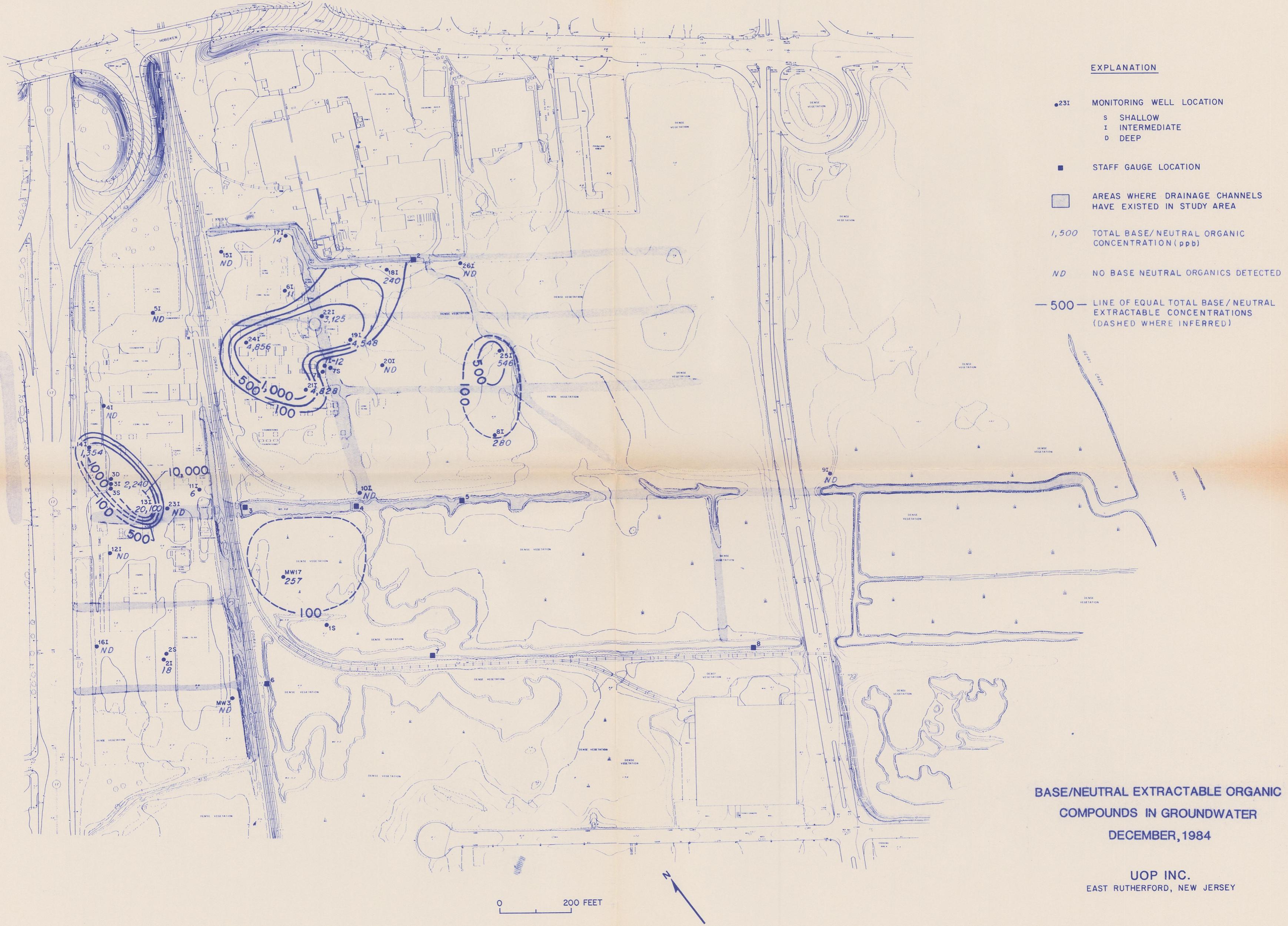
WATER TABLE CONTOUR MAP
MARCH 5, 1985

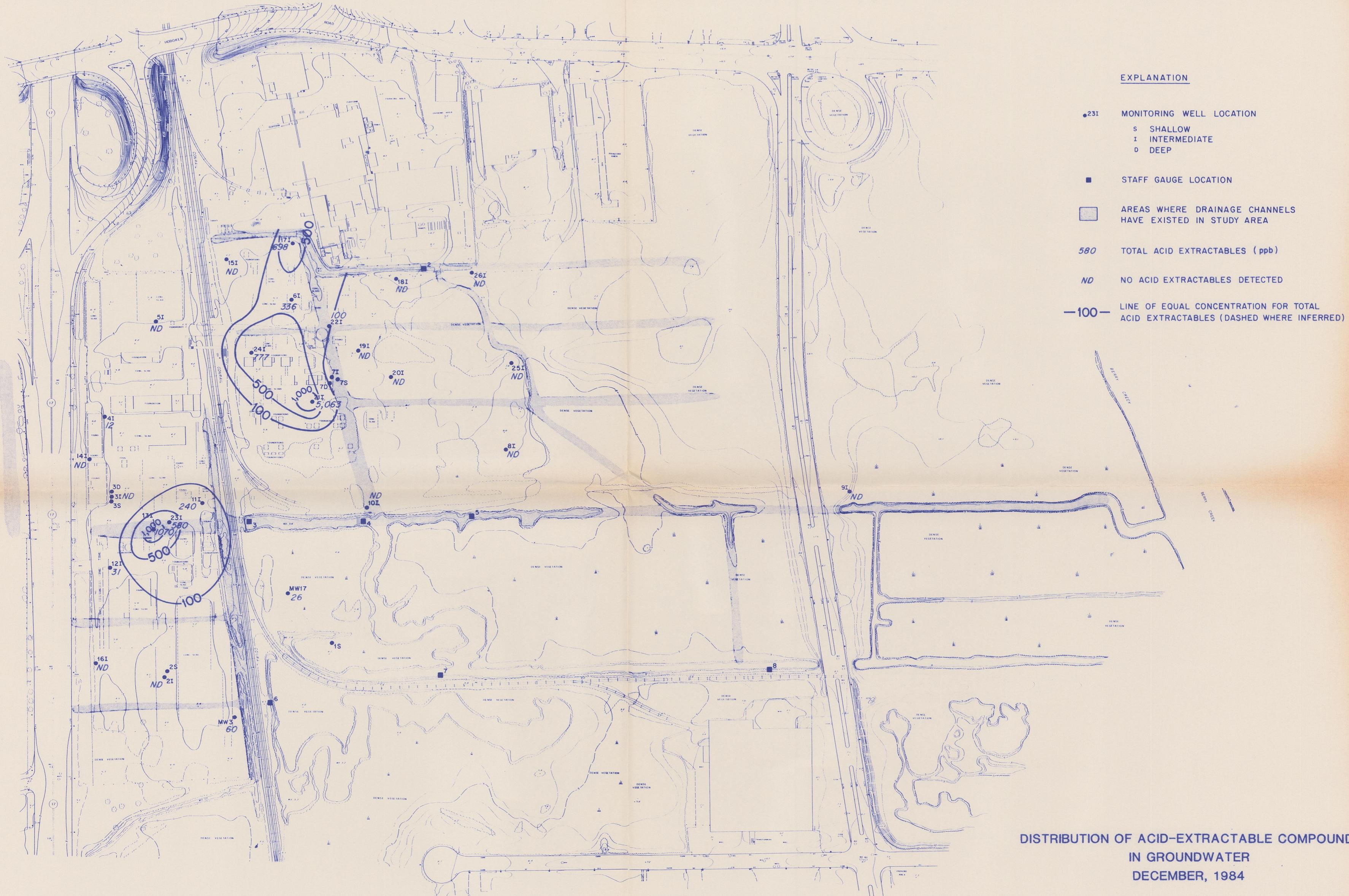
UOP INC.
EAST RUTHERFORD, NEW JERSEY

PLATE 3










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EXPLANATION

▲ SOIL BORING LOCATION
● MONITORING WELL LOCATION
S: Shallow
I: Intermediate
D: Deep

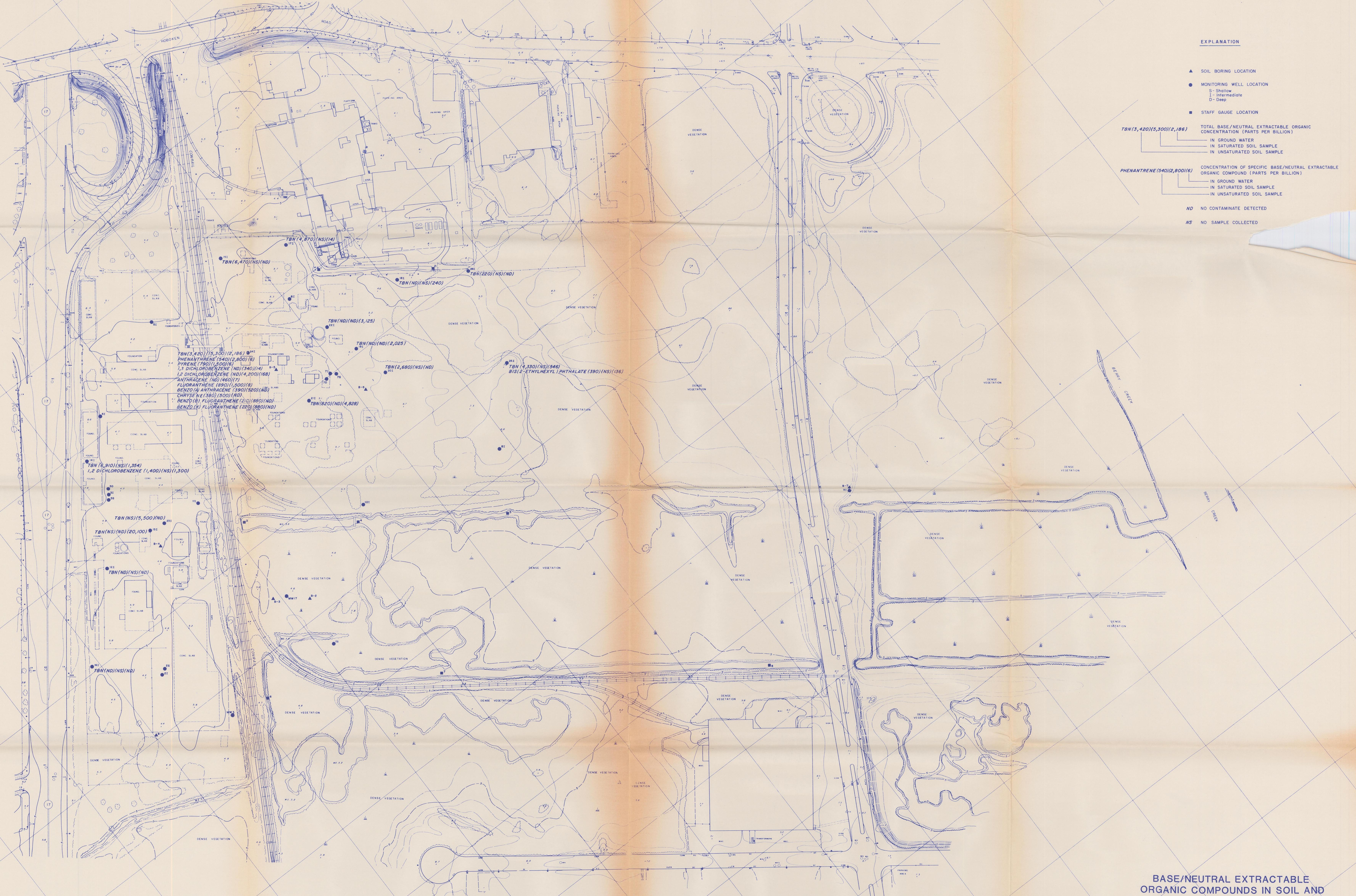
■ STAFF GAUGE LOCATION

TOTAL BASE/NEUTRAL EXTRACTABLE ORGANIC CONCENTRATION (PARTS PER BILLION)
IN GROUND WATER
IN SATURATED SOIL SAMPLE
IN UNSATURATED SOIL SAMPLE

PHENANTRENE(540)(2,800)(6)
CONCENTRATION OF SPECIFIC BASE/NEUTRAL EXTRACTABLE ORGANIC COMPOUND (PARTS PER BILLION)
IN GROUND WATER
IN SATURATED SOIL SAMPLE
IN UNSATURATED SOIL SAMPLE

ND NO CONTAMINATE DETECTED

NS NO SAMPLE COLLECTED



BASE/NEUTRAL EXTRACTABLE
ORGANIC COMPOUNDS IN SOIL AND
GROUNDWATER SAMPLES, 1984

UOP INC.
EAST RUTHERFORD, NEW JERSEY

NOTES:
1. DENSE VEGETATION INDICATES THAT GROUND IS OBSCURED
BY DENSE VEGETATION. THESE AREAS DO NOT CONFORM
TO NATIONAL MAP ACCURACY STANDARDS.

DATE OF PHOTOGRAPH 8/18/83
CONTOUR INTERVAL 1 FT
250 FOOT GRID BASED ON THE NEW JERSEY STATE PLANE COORDINATE
SYSTEM
VERTICAL DATUM 1929 VERTICAL DATUM OF 1929

